



## REPORT

### SILRES® BS 1701

#### Dose Range-Finding Prenatal Developmental Toxicity Study in the Han Wistar Rat

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**Sponsor:** **Wacker Chemie AG**  
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84489 Burghausen / Germany

**Study Identification:** Harlan Laboratories Study **C16981**

**Version:** Final

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## SIGNATURES

Study Director:

Dr. M. Adamska

Magdalena Adamska

Date: 18.05.2009

Analytical Chemistry:

Dr. D. Flade

D. Flade

Date: 15 May 2009

## PREFACE

### General Information

Test Item: SILRES® BS 1701  
Study Title: Dose Range-Finding Prenatal Developmental Toxicity Study in the Han Wistar Rat  
Sponsor: Wacker Chemie AG  
Johannes-Hess-Strasse 24  
84489 Burghausen / Germany  
Study Monitor: Dr. A. Bosch  
Corporate Product Safety  
Wacker Chemie AG  
Johannes-Hess-Strasse 24  
84489 Burghausen / Germany  
Test Facility: Harlan Laboratories Ltd.  
Wölferstrasse 4  
4414 Füllinsdorf / Switzerland

### Responsibilities

Study Director: Dr. M. Adamska  
Deputy Study Director: Dr. C. Senn  
Laboratory Technical Coordinator: D. Frei

### Study Scientist:

Study Part Analytical Chemistry: Dr. D. Flade

### Schedule

Experimental Starting Date (Delivery of Animals): 06-Jan-2009  
Initiation of Pairing: 13-Jan-2009  
First Test Item Administration: 20-Jan-2009  
Termination (Last Necropsies): 11-Feb-2009  
Experimental Completion Date: 11-Feb-2009

## **Animal Welfare**

This study was performed in an AAALAC-accredited laboratory in accordance with the Swiss Animal Protection Law under license 23.

## **Summary of Study Plan Deviation**

First Deviation: Consequently to the erroneous definition in system (RCC-TOX LIMS) food consumption was recorded at intervals: days 0-6, 6-11, 11-16, and 16-21 post coitum.

## **Archiving**

Harlan Laboratories Ltd. (4452 Itingen / Switzerland) will retain the study plan, raw data, sample of test item(s), specimens (as long as the quality permits evaluation), and the final report of the present study for at least ten years.

Frozen samples will be discarded three months after the final report has been issued, transferred to a GLP archive at additional costs, or returned to the Sponsor.

No data will be discarded without the Sponsor's written consent.

## 1 SUMMARY AND CONCLUSION

The purpose of this study was to detect effects on the pregnant rat and development of the embryo and fetus consequent to exposure of the female to the test item from day 6 post coitum (implantation) to day 20 post coitum (the day prior to Caesarean section).

Each group consisted of 5 mated females (5 per group)

Group 1:	0 mg/kg body weight/day (control group)
Group 2:	100 mg/kg body weight/day
Group 3:	300 mg/kg body weight/day
Group 4:	1000 mg/kg body weight/day

A standard dose volume of 5 mL/kg body weight with a daily adjustment to the actual body weight was used. Control animals were dosed with the vehicle alone (corn oil).

### 1.1 Maternal Data

#### General Tolerability

All females survived until the scheduled necropsy.

No clinical symptoms or signs of discomfort during the study were observed in any group.

#### Food Consumption and Body Weights

No test item-related adverse effects on mean food consumption, mean body weight mean body weight gain and corrected body weight gain (corrected for the gravid uterus weight) were noted in any group.

#### Reproduction Data

The relevant reproduction data (post implantation loss and mean number of fetuses per dam) did not indicate any test item related effects.

#### Macroscopical Findings

During necropsy no macroscopical findings were noted in any group.

### 1.2 Fetal Data

#### External Examination

No abnormal findings were noted during external examination of the fetuses in any group.

## **Sex Ratios**

No differences in the sex ratio of the fetuses were noted in any group.

## **Body Weights**

Mean fetal weights were not affected by treatment with the test item.

### **1.3 Conclusion**

Based on these observations, dose levels of 100, 300 and 1000 mg/kg were considered appropriate for a main prenatal developmental toxicity study in the rat.

## **2 PURPOSE**

The purpose of this study was to detect effects on the pregnant rat and development of the embryo and fetus consequent to exposure of the female to the test item from day 6 post coitum (implantation) to day 20 post coitum (the day prior to Caesarean section).

The results of this study will be used to establish suitable dose levels for a subsequent main prenatal developmental toxicity study in the Han Wistar rat.

### 3 MATERIALS AND METHODS

#### 3.1 Test System

Animals:	Rat, HanRcc: WIST(SPF)
Rationale:	Recognized by international guidelines as a recommended test system.
Breeder:	Harlan Laboratories Ltd. Laboratory Animal Services Wölferstrasse 4 4414 Füllinsdorf / Switzerland
Number of Animals:	20 mated females* 5 per group
Age (Day 0 Post Coitum):	at least 11 weeks
Body Weight Range (Day 0 Post Coitum):	186 to 218 g
Identification:	Cage card and individual animal number (ear tattoo).
Randomization:	Computer-generated random algorithm.
Acclimatization:	Under test conditions after health examination. Only animals without any visible signs of illness were used for the study.

#### 3.2 Allocation

The group identification and animal numbers assigned to treatment are stated in the following table:

Allocation and Dose Levels mg/kg bw/day	Group 1 control <b>0</b>	Group 2 <b>100</b>	Group 3 <b>300</b>	Group 4 <b>1000</b>
Females	1 - 5	6 - 10	11 - 15	16 - 20

\* In order to complete mating within a reasonable time period, 25 female rats were obtained from the breeder. The surplus females were killed after commencement of treatment for the last mated females.

### 3.3 Husbandry

Room Number, Füllinsdorf:	008A
Conditions:	Standard laboratory conditions. Air-conditioned with 10 - 15 air changes per hour, continuously monitored environmental conditions (temp. range: $22 \pm 3$ °C; relative humidity range: 30 - 70%). There was 12-hour fluorescent light / 12-hour dark cycle with music during the light period.
Accommodation:	Individually in Makrolon type-3 cages with wire mesh tops and sterilized standard softwood bedding ('Lignocel' Schill AG, 4132 Muttenz / Switzerland).
Diet:	Pelleted standard Kliba Nafag 3433 rat/mouse maintenance diet (Provimi Kliba SA, 4303 Kaiseraugst / Switzerland) was available <i>ad libitum</i> (batch no. 61/08).
Water:	Results of representative analyses for contaminants are included in Appendix I on p. <a href="#">86</a> . Community tap-water from Füllinsdorf was available <i>ad libitum</i> in water bottles. Results of bacteriological assay, chemical and contaminant analyses of representative samples are included in Appendix II on p. <a href="#">89</a> .

### 3.4 Test Item / Vehicle

Test item and data as provided by the Sponsor (Certificate of Analysis see in Appendix III on p. [93](#) ).

#### 3.4.1 Test Item

Identification:	SILRES® BS 1701
Chemical Name:	Triethoxy (2,4,4-trimethylpentyl) silane
Description:	liquid, colourless
CAS Number	35435-21-3
Batch Number:	KH07241
Purity:	94.1% (GC; 11.08.2008)
Expiry Date (Retest Date):	12-Jul-2009
Storage Conditions:	Room Temperature ( $20 \pm 5$ °C), protect against moisture (kept in container tightly closed).

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Safety Precautions: Routine hygienic procedures (gloves, goggles, face mask).

### 3.4.2 Vehicle and Control Item

Identification:	corn oil
Source:	Roth
Batch Number:	37899577
Expiry Date (Retest Date):	16-Sep-2018
Storage Conditions:	Room temperature ( $20 \pm 5$ °C)
Safety Precautions:	Routine hygienic procedures (gloves, goggles, face mask).

## 3.5 Dose Formulations

The dose formulations were prepared daily using the test item as supplied by the Sponsor.

SILRES® BS 1701 was weighed into a glass beaker on a tared precision balance and the vehicle was added (w/v). Using an appropriate homogenizer, a homogeneous solution was prepared. Separate formulations were prepared for each concentration.

Homogeneity of the test item in the vehicle was maintained during the daily administration period using a magnetic stirrer.

### 3.5.1 Analysis of Dose Formulations

On the first treatment day samples from the control group as well as three samples (top, middle and bottom) of about 2 g of each concentration were taken prior to dosing for analysis of concentration and homogeneity. Samples of about 2 g of each concentration were taken from the middle only to confirm stability (4 hours and 7 days). The aliquots for analysis of dose formulations were frozen ( $-20 \pm 5$  °C) and delivered on dry ice to Dr. D. Flade (Harlan Laboratories Ltd., Itingen / Switzerland) and stored there at  $-20 \pm 5$  °C until analysis.

The samples were analyzed by GC coupled to a flame ionisation detector following an analytical procedure provided by the Sponsor and adapted at Harlan Laboratories. The test item was used as the analytical standard. Analyzed samples were not discarded without written consent from the study director.

The results are summarized in Appendix IV on p. [96](#).

### 3.6 Treatment

Method: Oral, by gavage

Rationale for Method: Administration by gavage is a common and accepted route of exposure for studies of this type.

Frequency of Administration: Daily.

Target Dose Levels:

Group 1:	0 mg/kg/day (control group)
Group 2:	100 mg/kg/day
Group 3:	300 mg/kg/day
Group 4:	1000 mg/kg/day

Rationale for Dose Level Selection:

The dose levels were selected based on a previous subacute (28-days repeated) oral toxicity study in Han Wistar rats (BSL Bioservice), using dose levels of 150, 500 and 1000 mg/kg/day, resulting in a NOEL of 150 mg/kg/day.

Dose Volume: 5 mL/kg body weight

Duration of Acclimatization Period: Minimum 7 days

Duration of Treatment Period: Day 6 - 20 post coitum

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### 3.7 Study Schedule (Schematic Diagram)

#### **Days of study**

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Acclimatization

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: Pairing

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Day 0 post coitum

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Day 6 post coitum (first treatment)

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Day 20 post coitum (last treatment)

Day 21 post coitum (Caesarean section and necropsy)

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### **3.8 Mating**

After acclimatization, females were housed with sexually mature males (1:1) in special automatic mating cages i.e. with synchronized timing to initiate the nightly mating period, until evidence of copulation was observed. This system reduced the variation in the copulation times of the different females. The females were removed and housed individually if:

- a) The daily vaginal smear was sperm positive, or
- b) A copulation plug was observed.

The day of mating was designated day 0 post coitum.

Male rats of the same source and strain were used only for mating. These male rats are in the possession of Harlan Laboratories and were not considered part of the test system. The fertility of these males had been proven and was continuously monitored.

### **3.9 Observations**

The following observations were recorded as follows:

Viability / Mortality:	Twice daily
Clinical Signs:	Daily cage-side clinical observations (once daily, during acclimatization and up to day of necropsy).
Food Consumption:	Recorded at intervals: days 0-6, 6-11, 11-16, and 16-21 post coitum.
Body Weights:	Recorded daily from day 0 until day 21 post coitum.

### **3.10 Termination of the Study**

At the scheduled necropsy on day 21 post coitum, females were sacrificed by CO<sub>2</sub> asphyxiation and the fetuses removed by Caesarean section.

#### **3.10.1 Necropsy**

The females were sacrificed by CO<sub>2</sub> asphyxiation. Post mortem examination, including gross macroscopic examination of all internal organs with emphasis on the uterus, uterine contents, position of fetuses in the uterus and the number of corpora lutea was performed and the data recorded. The uteri (and contents) of all females with live fetuses were weighed during necropsy on day 21 post coitum to enable the calculation of the corrected body weight gain.

Fetuses were removed from the uterus, sexed, weighed individually, examined for gross external abnormalities, sacrificed by a subcutaneous injection of sodium pentobarbital and discarded.

If no implantation sites were evident, the uterus was placed in an aqueous solution of ammonium sulfide to accentuate possible hemorrhagic areas of implantation sites [see [References \(1\)](#)].

### **3.11 Data Compilation and Processing**

The following data were recorded on-line: food consumption, body weights, reproduction data and uterus weights at Caesarean section (RCC-TOX LIMS).

All other data were recorded on data sheets and compiled manually.

From the on-line recorded reproduction data, the following parameters were calculated: Pre- and post-implantation losses, embryonic and fetal deaths, live and dead fetuses, abnormal fetuses, fetal sex ratios and fetal body weights.

For reproduction data, group mean values were calculated both on a litter basis and on a percentage per group basis. Mean fetal weights were calculated from the individual weights both on a per group and on a per litter basis.

Computer-generated values in the tables represent the rounded-off results of calculations which used the exact raw data values.

### **3.12 Terminology Used in the Assessment of the Data**

Empty Implantation Site:	Very early resorption or aborted implantation
Embryonic Resorption:	Amorphous mass being resorbed
Fetal Resorption:	Clearly defined fetal body being resorbed
Dead Fetus:	Appearance of live fetus but without induced respiration or movement
Live Fetus:	Breathing and/or moving fetus
Abnormality:	A structural change in a fetus that would probably impair its health or development.
Variation:	A fetal change that is unlikely to adversely affect survival or health. This includes a delay in growth or morphogenesis that has otherwise followed a normal pattern of development.

### 3.13 Statistical Analysis

The following statistical methods were used to analyze food consumption, body weights and reproduction data:

- Means and standard deviations of various data were calculated.
- The Dunnett-test [see [References \(2\)](#)] (many to one t-test) based on a pooled variance estimate was applied if the variables could be assumed to follow a normal distribution for the comparison of the treated groups and the control groups for each sex.
- The Steel-test [see [References \(3\)](#)] (many-one rank test) was applied instead of the Dunnett-test when the data could not be assumed to follow a normal distribution.
- Fisher's exact-test [see [References \(4\)](#)] was applied if the variables could be dichotomized without loss of information.

## 4 RESULTS

The following dose levels were applied:

Group 1:	0 mg/kg body weight/day (control group)
Group 2:	100 mg/kg body weight/day
Group 3:	300 mg/kg body weight/day
Group 4:	1000 mg/kg body weight/day

### 4.1 Analysis of Dose Formulations

(See Appendix IV on p. 96 )

Mean concentrations of SILRES® BS 1701 in the respective dose formulations ranged from 92.4% to 103.8% of the nominal concentration and were within the required limit of  $\pm 20\%$ . The homogenous distribution of the test item in the preparations was confirmed. Actual concentrations ranged from 90.8% to 108.5% and were within the required limit of  $\pm 15\%$ . Test item was stable in corn oil for seven days at room temperature, maximum variation from mean was 4.1% which is below 10% of the variation limit.

### 4.2 Summary of Performance of Mated Females

Group Dose (mg/kg)	1 (0)	2 (100)	3 (300)	4 (1000)
Female numbers	1 - 5	6 - 10	11 - 15	16 - 20
Number of mated females	5	5	5	5
Number of females with live fetuses at termination*	5	5	5	5

\* Only dams with at least one live fetus at Caesarean section were used for the calculations of food consumption, body weight gain and corrected body weight gain data.

### 4.3 Maternal Data

#### 4.3.1 Clinical Signs or Observations

(See Summary Table on p. 29 , Individual Tables on p. 51 )

All females survived until the scheduled necropsy.

No clinical symptoms or signs of discomfort during the study were observed in any group.

### **4.3.2 Food Consumption**

(See Figure on p. [24](#), Summary Tables on p. [30](#), Individual Tables on p. [55](#))

No test item-related adverse effects on mean food consumption were noted in any group.

Compared to the control group value, the overall mean food consumption during the treatment period (from day 6 to 21 post coitum) was by +4.3%, +2.4% and -1.4% in groups 2, 3 and 4, respectively.

In group 4, mean food consumption was slightly (not statistically significantly) reduced towards the end of the treatment period and from day 16 to 21 post coitum was by -7.2% of the control value. Since this reduction did not result in a decrease of body weights, this effect was considered not to be adverse.

### **4.3.3 Body Weights**

(See Figures on p. [25](#), Summary Tables on p. [32](#), Individual Tables on p. [59](#))

No test item-related adverse effects on body weight gain and body weights were noted in any group.

The overall body weight gain from day 6 to 21 post coitum was +50%, +51.1%, +51.1 and +46.4% in groups 1, 2, 3 and 4, respectively. Mean corrected body weight gain was +14.5%, +12.7%, +16.5% and 9.3% in groups 1, 2, 3 and 4, respectively.

In group 4, a slight (not statistically significant) reduction of mean body weight gain and corrected body weight gain (corrected for the gravid uterus weight) were noted. Since mean body weights remained similar to the control values these effects were considered not to be adverse.

### **4.3.4 Reproduction Data**

(See Summary Table on p. [41](#), Individual Tables on pp. [67](#), [71](#), [75](#) and [79](#))

The relevant reproduction data (post implantation loss and mean number of fetuses per dam) did not indicate any test item related effects.

Mean number of fetuses per dam was 12.0, 13.4, 11.8 and 13.8 in groups 1, 2, 3 and 4, respectively.

### **4.3.5 Macroscopical Findings**

(See Summary Table on p. 43 , Individual Tables on p. 83 )

During necropsy no macroscopical findings were noted in any group.

## **4.4 Fetal Data**

### **4.4.1 External Examination**

(See Summary Table on p. 45 )

No abnormal findings were noted during external examination of the fetuses in any group.

### **4.4.2 Sex Ratios**

(See Summary Table on p. 41 , Individual Tables on p. 79 )

No differences in the sex ratio of the fetuses were noted in any group.

The proportion of male fetuses was 46.7%, 47.8, 49.2 and 39.1% in order of ascending dose level.

### **4.4.3 Body Weights**

(See Summary Tables on pp. 41 and 46 and Individual Tables on p. 71 )

Mean fetal weights were not affected by treatment with the test item.

The overall mean body weights of fetuses were 4.8, 4.8, 4.9 and 4.6 g in groups 1, 2, 3 and 4, respectively.

In group 4, mean body weights of live fetuses (calculated on an individual basis) were statistically significantly lower. This was a consequence of a higher number of fetuses per dam noted in this group and not a test item related effect.

## **5 DISCUSSION AND CONCLUSION**

The purpose of this preliminary study was to determine the maximum tolerated dose level of SILRES® BS 1701, suitable for use in a subsequent prenatal developmental toxicity study. The test item was administered orally by gavage once daily at dose levels of 100, 300 and 1000 mg/kg/ body weight/day.

Treatment with the test item up to and including 1000 mg/kg body weight/day resulted in no clinical findings or adverse effects on dams and did not affect embryo-fetal development.

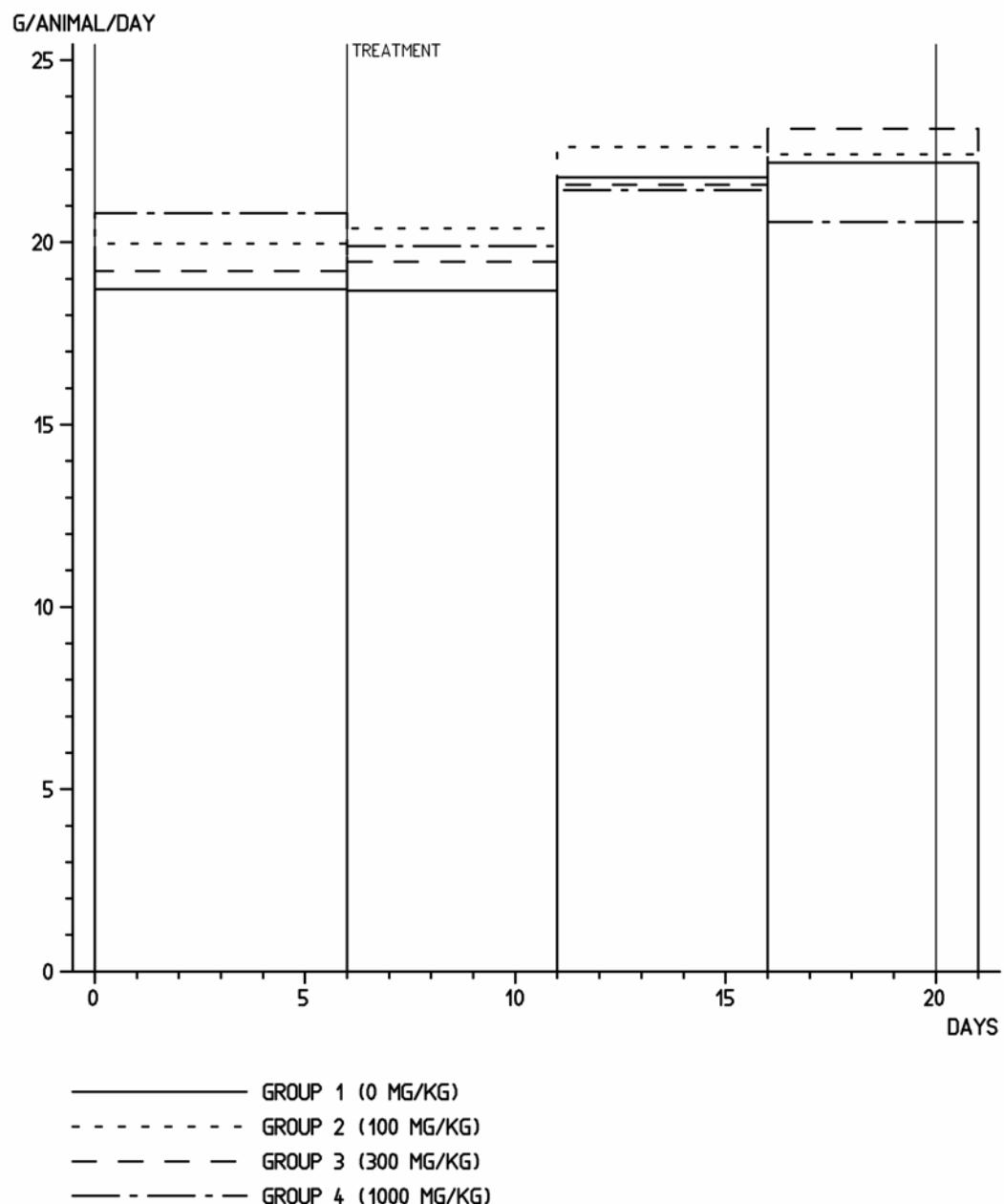
Based on these observations, dose levels of 100, 300 and 1000 mg/kg were considered appropriate for a main prenatal developmental toxicity study in the rat.

## 6 REFERENCES

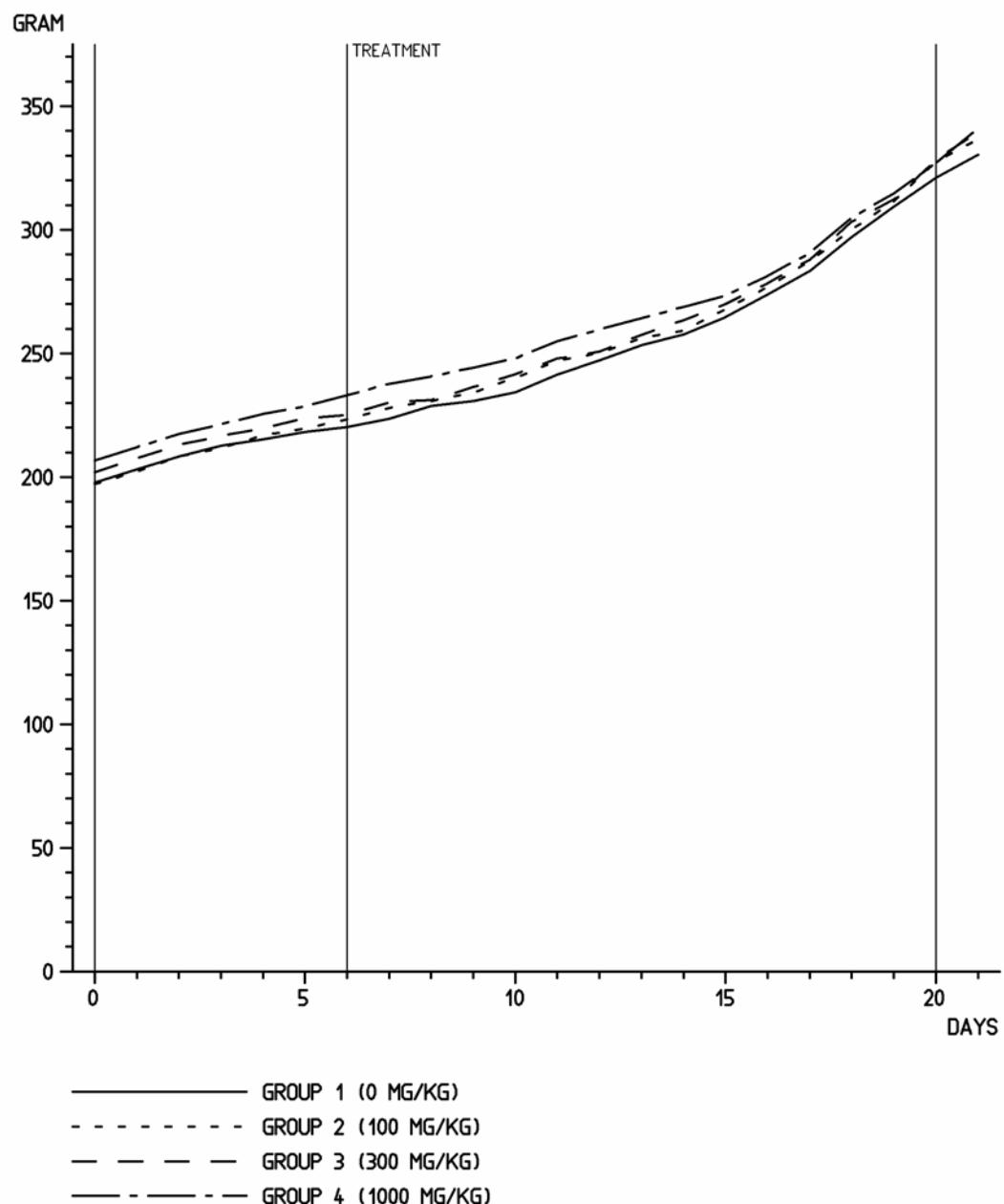
1. E. Salewski:  
Arch. Exp. Path. Pharmak. 247, pp. 367-368 (1964)
2. C.W. Dunnett:  
A Multiple Comparison Procedure for Comparing Several Treatments with a Control, J. Amer. Statist. Assoc. 50, pp. 1096-1121 (1955).
3. R.G. Miller:  
Simultaneous Statistical Inference, Springer Verlag, New York (1981).
4. R.A. Fisher:  
Statistical Methods for Research Workers, Oliver and Boyd, Edinburgh (1950).

## 7 FIGURES

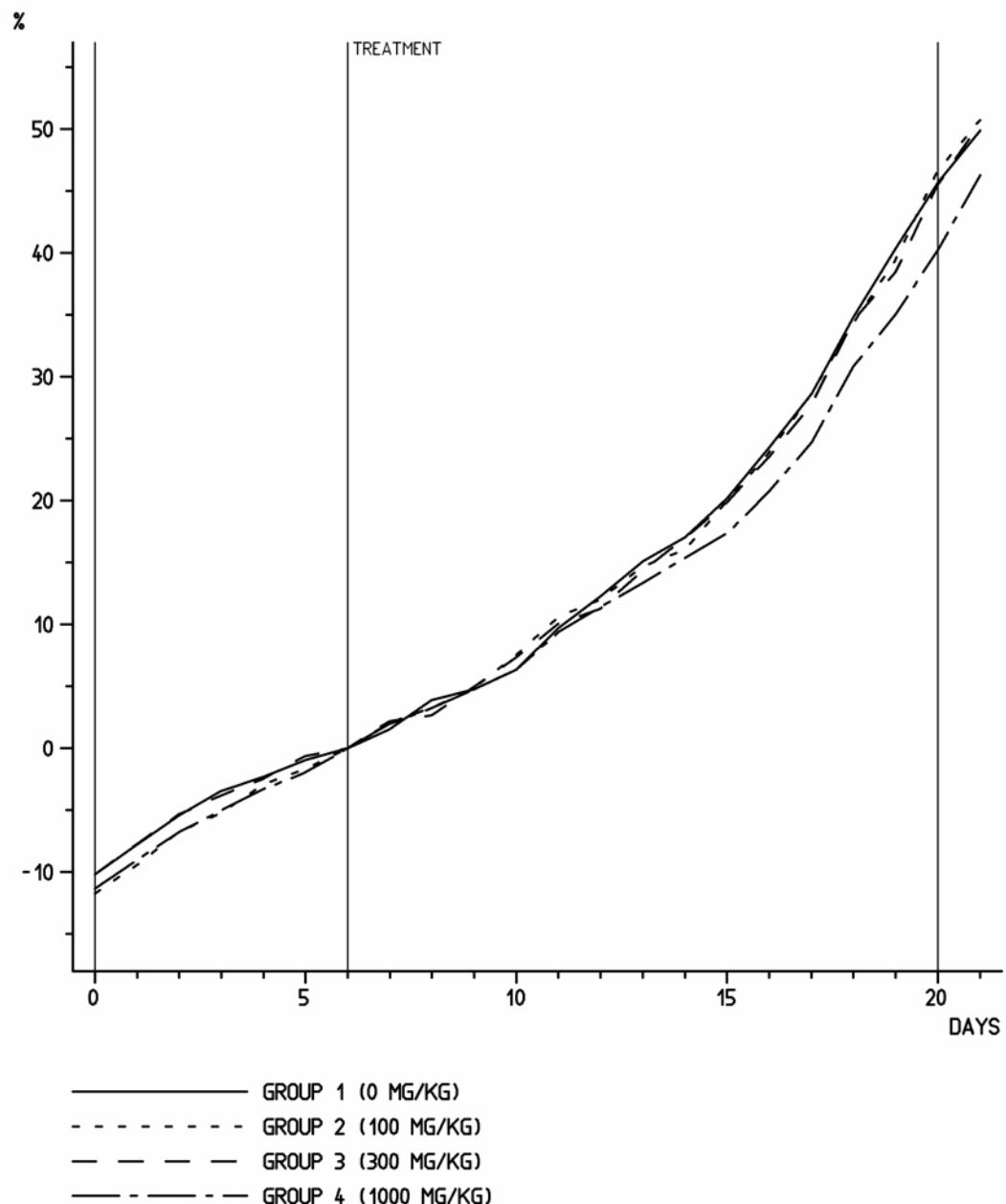
## FOOD CONSUMPTION OF DAMS



## BODY WEIGHTS OF DAMS



## BODY WEIGHT GAIN OF DAMS



## **8 SUMMARY TABLES**

## **Maternal Data**

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## Clinical Signs or Observations

	Group 1 0 mg/kg	Group 2 100 mg/kg	Group 3 300 mg/kg	Group 4 1000 mg/kg
<b>Number of females examined</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>
No clinical signs or observations	5	5	5	5

**FOOD CONSUMPTION (G/ANIMAL/DAY) OF DAMS SUMMARY**

		GROUP 1 0 MG/KG	GROUP 2 100 MG/KG	GROUP 3 300 MG/KG	GROUP 4 1000 MG/KG
DAY	0-6	MEAN ST.DEV. N	18.7 1.7 5	20.0 1.7 5	19.2 2.2 5
DAY	6-11	MEAN ST.DEV. N	18.7 1.5 5	20.4 1.6 5	19.5 2.5 5
DAY	11-16	MEAN ST.DEV. N	21.8 1.7 5	22.6 1.5 5	21.6 2.1 5
DAY	16-21	MEAN ST.DEV. N	22.2 2.0 5	22.4 1.0 5	23.1 2.7 5
	MEAN OF MEANS		20.3	21.3	20.8
					20.7

\* / \*\* : Dunnett-Test based on pooled variance significant at 5% (\*) or 1% (\*\*) level

## Differences in Mean Food Consumption (G/Animal/Day) of Dams

Group (mg/kg)	Days post coitum							
	0 - 6		6 - 11		11 - 16		16 - 21	
	g	%*	g	%*	g	%*	g	%*
1 (0)	18.7		18.7		21.8		22.2	
2 (100)	20.0	+8.0	20.4	+9.1	22.6	+3.7	22.4	+0.9
3 (300)	19.2	+2.7	19.5	+4.3	21.6	-0.9	23.1	+4.1
4 (1000)	20.8	+11.2	19.9	+6.4	21.4	-1.8	20.6	-7.2

Group (mg/kg)	Days post coitum	
	6 - 21**	
	g	%*
1 (0)	20.9	
2 (100)	21.8	+4.3
3 (300)	21.4	+2.4
4 (1000)	20.6	-1.4

\* Percentages refer to the values of group 1.

\*\* The calculations of food consumption during the treatment period started on day 6 post coitum (immediately prior to the first administration) and ended on day 21 post coitum (approximately 24 hours after the last administration).

**BODY WEIGHTS (GRAM) OF DAMS SUMMARY**

		GROUP 1 0 MG/KG	GROUP 2 100 MG/KG	GROUP 3 300 MG/KG	GROUP 4 1000 MG/KG
DAY	0	MEAN ST.DEV. N	198 11.7 5	197 4.3 5	202 8.3 5
DAY	1	MEAN ST.DEV. N	203 11.2 5	202 5.1 5	208 11.3 5
DAY	2	MEAN ST.DEV. N	208 12.3 5	208 5.6 5	213 10.9 5
DAY	3	MEAN ST.DEV. N	213 13.4 5	212 6.8 5	217 12.9 5
DAY	4	MEAN ST.DEV. N	215 11.2 5	217 6.0 5	220 14.1 5
DAY	5	MEAN ST.DEV. N	218 13.1 5	220 6.5 5	224 12.0 5
DAY	6	MEAN ST.DEV. N	220 11.8 5	223 7.5 5	225 13.1 5
DAY	7	MEAN ST.DEV. N	224 12.8 5	228 6.5 5	230 13.5 5
DAY	8	MEAN ST.DEV. N	229 12.9 5	231 8.1 5	231 14.3 5
DAY	9	MEAN ST.DEV. N	231 13.0 5	234 7.3 5	236 15.0 5
DAY	10	MEAN ST.DEV. N	234 13.0 5	240 7.1 5	242 15.5 5
DAY	11	MEAN ST.DEV. N	242 12.9 5	247 7.6 5	248 17.6 5
DAY	12	MEAN ST.DEV. N	247 11.3 5	250 6.4 5	251 18.3 5
DAY	13	MEAN ST.DEV. N	253 12.0 5	256 9.9 5	258 16.6 5
DAY	14	MEAN ST.DEV. N	258 14.1 5	259 8.9 5	264 18.7 5

\* / \*\* : Dunnett-Test based on pooled variance significant at 5% (\*) or 1% (\*\*) level

**BODY WEIGHTS (GRAM) OF DAMS SUMMARY**

		GROUP 1 0 MG/KG	GROUP 2 100 MG/KG	GROUP 3 300 MG/KG	GROUP 4 1000 MG/KG
DAY	15	MEAN ST.DEV. N	265 14.8 5	268 9.8 5	270 19.7 5
DAY	16	MEAN ST.DEV. N	274 14.1 5	277 10.9 5	278 21.1 5
DAY	17	MEAN ST.DEV. N	283 17.9 5	287 10.8 5	288 23.1 5
DAY	18	MEAN ST.DEV. N	297 19.1 5	300 10.3 5	303 24.3 5
DAY	19	MEAN ST.DEV. N	309 22.6 5	312 13.2 5	312 29.1 5
DAY	20	MEAN ST.DEV. N	321 25.0 5	328 12.0 5	328 33.5 5
DAY	21	MEAN ST.DEV. N	330 24.8 5	337 13.5 5	340 35.5 5

\* / \*\* : Dunnett-Test based on pooled variance significant at 5% (\*) or 1% (\*\*) level

**BODY WEIGHT GAIN (%) OF DAMS SUMMARY**

			GROUP 1 0 MG/KG	GROUP 2 100 MG/KG	GROUP 3 300 MG/KG	GROUP 4 1000 MG/KG
DAY	0	MEAN	-10	-12	-10	-11
		ST.DEV.	0.7	1.7	1.8	0.9
		N	5	5	5	5
DAY	1	MEAN	-8	-9	-8	-9
		ST.DEV.	1.2	1.2	0.5	1.7
		N	5	5	5	5
DAY	2	MEAN	-5	-7	-5	-7
		ST.DEV.	0.9	1.4	0.9	1.3
		N	5	5	5	5
DAY	3	MEAN	-3	-5	-4	-5
		ST.DEV.	1.2	1.1	1.5	0.8
		N	5	5	5	5
DAY	4	MEAN	-2	-3	-2	-3
		ST.DEV.	0.8	1.1	1.3	1.0
		N	5	5	5	5
DAY	5	MEAN	-1	-2	-1	-2
		ST.DEV.	0.8	1.3	0.7	0.6
		N	5	5	5	5
DAY	6	MEAN	0	0	0	0
		ST.DEV.	0.0	0.0	0.0	0.0
		N	5	5	5	5
DAY	7	MEAN	2	2	2	2
		ST.DEV.	1.2	1.2	1.3	0.9
		N	5	5	5	5
DAY	8	MEAN	4	3	3	3
		ST.DEV.	0.9	1.0	1.3	1.8
		N	5	5	5	5
DAY	9	MEAN	5	5	5	5
		ST.DEV.	1.3	1.1	0.9	1.4
		N	5	5	5	5
DAY	10	MEAN	6	8	7	6
		ST.DEV.	0.8	1.0	1.1	2.4
		N	5	5	5	5
DAY	11	MEAN	10	11	10	9
		ST.DEV.	0.9	0.6	2.0	2.2
		N	5	5	5	5
DAY	12	MEAN	12	12	11	11
		ST.DEV.	1.0	1.5	2.3	2.3
		N	5	5	5	5
DAY	13	MEAN	15	15	14	13
		ST.DEV.	0.8	1.5	1.5	2.5
		N	5	5	5	5
DAY	14	MEAN	17	16	17	15
		ST.DEV.	1.1	1.4	2.1	2.9
		N	5	5	5	5

\* / \*\* : Dunnett-Test based on pooled variance significant at 5% (\*) or 1% (\*\*) level

**BODY WEIGHT GAIN (%) OF DAMS SUMMARY**

		GROUP 1 0 MG/KG	GROUP 2 100 MG/KG	GROUP 3 300 MG/KG	GROUP 4 1000 MG/KG
DAY	15	MEAN ST. DEV. N	20 0.8 5	20 1.2 5	20 2.3 5
DAY	16	MEAN ST. DEV. N	24 1.5 5	24 1.7 5	24 2.8 5
DAY	17	MEAN ST. DEV. N	29 1.7 5	29 2.1 5	28 3.5 5
DAY	18	MEAN ST. DEV. N	35 2.4 5	34 1.9 5	35 3.6 5
DAY	19	MEAN ST. DEV. N	40 3.6 5	39 2.8 5	38 5.7 5
DAY	20	MEAN ST. DEV. N	46 4.7 5	47 3.4 5	46 7.5 5
DAY	21	MEAN ST. DEV. N	50 4.1 5	51 4.0 5	50 8.1 5

\* / \*\* : Dunnett-Test based on pooled variance significant at 5% (\*) or 1% (\*\*) level

## Differences in Mean Body Weight Gain (G) of Dams

<b>Group</b> <b>(mg/kg)</b>	<b>Days post coitum</b>							
	<b>0 - 6</b>		<b>6 - 11</b>		<b>11 - 16</b>		<b>16 - 21</b>	
	<b>g</b>	<b>%*</b>	<b>g</b>	<b>%*</b>	<b>g</b>	<b>%*</b>	<b>g</b>	<b>%*</b>
1 (0)	22	+11.1	22	+10.0	32	+13.2	56	+20.4
2 (100)	26	+13.2	24	+10.8	30	+12.1	60	+21.7
3 (300)	23	+11.4	23	+10.2	30	+12.1	62	+22.3
4 (1000)	26	+12.6	22	+9.4	26	+10.2	60	+21.4

<b>Group</b> <b>(mg/kg)</b>	<b>Days post coitum</b>			<b>Corrected body weight gain% (see p. <a href="#">37</a> )</b>
	<b>6 - 21**</b>		<b>g</b>	
			<b>%*</b>	
1 (0)	110	+50.0		14.5
2 (100)	114	+51.1		12.7
3 (300)	115	+51.1		16.5
4 (1000)	108	+46.4		9.3

\* Alteration within the respective period.

\*\* The calculations of body weight gain during the treatment period started on day 6 post coitum (immediately prior to the first administration) and ended on day 21 post coitum (approximately 24 hours after the last administration).

---

**CORRECTED BODY WEIGHT GAIN OF DAMS**

**GROUP 1 (0 MG/KG)**

FEMALE	WEIGHT ON DAY 6 P.C. (G)	WEIGHT ON DAY OF SECTION (G)	WEIGHT OF UTERUS (G)	CORRECTED WEIGHT GAIN GRAM<1>	CORRECTED WEIGHT GAIN PERCENT<2>
1	216.2	311.8	56.4	39.2	18.1
2	238.9	369.5	95.7	34.9	14.6
3	213.2	324.3	84.6	26.5	12.4
4	224.0	337.9	79.0	35.0	15.6
5	208.8	308.3	75.3	24.2	11.6
N		5	5	5	5
MEAN		78.2	32.0	32.0	14.5
ST.DEV.		14.4	6.3	6.3	2.6

---

<1> : (Weight on Day of Section) - (Weight on Day 6 P.C.) - (Weight Uterus)  
<2> : Corrected Weight Gain in Percent of Weight on Day 6 P.C.  
\*/\*\* : Dunnett-Test based on pooled variance significant at level 5% (\*) or 1% (\*\*)

---

**CORRECTED BODY WEIGHT GAIN OF DAMS**

**GROUP 2 (100 MG/KG)**

FEMALE	WEIGHT ON DAY 6 P.C. (G)	WEIGHT ON DAY OF SECTION (G)	WEIGHT OF UTERUS (G)	CORRECTED WEIGHT GAIN GRAM<1>	CORRECTED WEIGHT GAIN PERCENT<2>
6	219.6	344.4	92.5	32.3	14.7
7	230.1	338.3	82.8	25.4	11.1
8	226.8	345.5	86.1	32.6	14.4
9	212.1	313.1	73.9	27.1	12.8
10	228.4	342.4	89.9	24.0	10.5
N			5	5	5
MEAN			85.0	28.3	12.7
ST.DEV.			7.2	3.9	1.9

---

<1> : (Weight on Day of Section) - (Weight on Day 6 P.C.) - (Weight Uterus)  
<2> : Corrected Weight Gain in Percent of Weight on Day 6 P.C.  
\*/\*\* : Dunnett-Test based on pooled variance significant at level 5% (\*) or 1% (\*\*)

---

**CORRECTED BODY WEIGHT GAIN OF DAMS**

**GROUP 3 (300 MG/KG)**

FEMALE	WEIGHT ON DAY 6 P.C. (G)	WEIGHT ON DAY OF SECTION (G)	WEIGHT OF UTERUS (G)	CORRECTED WEIGHT GAIN GRAM<1>	CORRECTED WEIGHT GAIN PERCENT<2>
11	234.3	365.6	84.5	46.7	19.9
12	232.7	357.4	86.1	38.5	16.6
13	218.8	337.1	83.8	34.5	15.8
14	205.0	279.0	39.3	34.7	16.9
15	234.9	358.7	93.1	30.7	13.1
N		5	5	5	5
MEAN		77.4	37.0	37.0	16.5
ST.DEV.		21.6	6.1	6.1	2.5

---

<1> : (Weight on Day of Section) - (Weight on Day 6 P.C.) - (Weight Uterus)  
<2> : Corrected Weight Gain in Percent of Weight on Day 6 P.C.  
\*/\*\* : Dunnett-Test based on pooled variance significant at level 5% (\*) or 1% (\*\*)

---

**CORRECTED BODY WEIGHT GAIN OF DAMS**

**GROUP 4 (1000 MG/KG)**

FEMALE	WEIGHT ON DAY 6 P.C. (G)	WEIGHT ON DAY OF SECTION (G)	WEIGHT OF UTERUS (G)	CORRECTED WEIGHT GAIN GRAM<1>	CORRECTED WEIGHT GAIN PERCENT<2>
16	231.0	350.4	82.9	36.4	15.8
17	233.0	338.1	90.5	14.6	6.3
18	225.6	336.1	83.9	26.6	11.8
19	228.8	331.0	78.4	23.8	10.4
20	247.3	348.8	95.7	5.8	2.4
	N		5	5	5
	MEAN		86.3	21.5	9.3
	ST.DEV.		6.8	11.7	5.2

---

<1> : (Weight on Day of Section) - (Weight on Day 6 P.C.) - (Weight Uterus)  
<2> : Corrected Weight Gain in Percent of Weight on Day 6 P.C.  
\*/\*\* : Dunnett-Test based on pooled variance significant at level 5% (\*) or 1% (\*\*)

**REPRODUCTION DATA SUMMARY**

	GROUP 1 0 MG/KG	GROUP 2 100 MG/KG	GROUP 3 300 MG/KG	GROUP 4 1000 MG/KG
NUMBER OF DAMS	5	5	5	5
CORPORA LUTEA	68	70	66	73
MEAN (+)	13.6	14.0	13.2	14.6
ST. DEV.	1.8	1.2	2.4	2.1
PRE-IMPLANTATION LOSS	3	2	2	2
% OF CORP. LUTEA (#)	4.4	2.9	3.0	2.7
MEAN (+)	0.6	0.4	0.4	0.4
ST. DEV.	0.9	0.5	0.5	0.5
NUMBER OF DAMS AFFECTED	2	2	2	2
IMPLANTATION SITES	65	68	64	71
% OF CORP. LUTEA (#)	95.6	97.1	97.0	97.3
MEAN (+)	13.0	13.6	12.8	14.2
ST. DEV.	2.2	1.1	2.2	2.2
POST-IMPLANTATION LOSS	5	1	5	2
% OF IMPL. SITES (#)	7.7	1.5	7.8	2.8
MEAN (+)	1.0	0.2	1.0	0.4
ST. DEV.	1.4	0.4	1.2	0.9
NUMBER OF DAMS AFFECTED	2	1	3	1
IMPLANTATION SITE SCARS	0	0	0	0
EMBRYONIC/FETAL DEATHS TOTAL	5	1	5	2
EMBRYONIC RESORPTIONS	5	1	5	2
FETAL RESORPTIONS	0	0	0	0
FETUSES				
TOTAL FETUSES	60	67	59	69
% OF IMPL. SITES (#)	92.3	98.5	92.2	97.2
MEAN (+)	12.0	13.4	11.8	13.8
ST. DEV.	2.3	1.1	3.3	1.3
LIVE FETUSES	60	67	59	69
DEAD FETUSES	0	0	0	0
ABNORMAL FETUSES	0	0	0	0
SEX OF FETUSES				
TOTAL MALES	28	32	29	27
% OF FETUSES (#)	46.7	47.8	49.2	39.1
MEAN (+)	5.6	6.4	5.8	5.4
ST. DEV.	1.5	1.1	3.6	2.3
TOTAL FEMALES	32	35	30	42
% OF FETUSES (#)	53.3	52.2	50.8	60.9
MEAN (+)	6.4	7.0	6.0	8.4
ST. DEV.	1.5	1.7	1.2	3.2

\*/\*\* : Dunnett-Test based on pooled variance significant at level 5% (\*) or 1% (\*\*)  
#/## : Fisher's Exact Test significant at level 5% (#) or 1% (##)  
+ : Steel Test significant at level 5%

**REPRODUCTION DATA SUMMARY**

	GROUP 1 0 MG/KG	GROUP 2 100 MG/KG	GROUP 3 300 MG/KG	GROUP 4 1000 MG/KG
NUMBER OF DAMS	5	5	5	5
SEX OF FETUSES (CONT.)				
LIVE MALES	28	32	29	27
LIVE FEMALES	32	35	30	42
WEIGHTS OF LIVE FETUSES (G) (LITTER BASIS)				
TOTAL FETUSES				
N (LITTERS)	5	5	5	5
MEAN (*)	4.9	4.8	4.9	4.6
ST. DEV.	0.3	0.1	0.2	0.2
MALES				
N (LITTERS)	5	5	4	5
MEAN (*)	5.0	4.9	5.1	4.8
ST. DEV.	0.3	0.1	0.2	0.1
FEMALES				
N (LITTERS)	5	5	5	5
MEAN (*)	4.8	4.7	4.7	4.5
ST. DEV.	0.3	0.1	0.1	0.2
WEIGHTS OF LIVE FETUSES (G) (INDIVIDUAL BASIS)				
TOTAL FETUSES				
N (FETUSES)	60	67	59	69
MEAN (*)	4.8	4.8	4.9	4.6 **
ST. DEV.	0.4	0.3	0.3	0.4
MALES				
N (FETUSES)	28	32	29	27
MEAN (*)	5.0	5.0	5.1	4.8 *
ST. DEV.	0.3	0.2	0.3	0.2
FEMALES				
N (FETUSES)	32	35	30	42
MEAN (*)	4.7	4.7	4.8	4.4 **
ST. DEV.	0.3	0.3	0.3	0.4

\*/\*\* : Dunnett-Test based on pooled variance significant at level 5% (\*) or 1% (\*\*)  
#/## : Fisher's Exact Test significant at level 5% (#) or 1% (##)  
+ : Steel Test significant at level 5%

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## Macroscopical Findings

	Group 1 0 mg/kg	Group 2 100 mg/kg	Group 3 300 mg/kg	Group 4 1000 mg/kg
<b>Number of females examined</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>
No abnormal findings	5	5	5	5

## Fetal Data

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### External Examination of Fetuses

<b>Group (mg/kg)</b>	<b>No. of fetuses examined</b>	<b>Type of abnormal finding(s)</b>
1 (0)	60	No abnormal findings noted
2 (100)	67	No abnormal findings noted
3 (300)	59	No abnormal findings noted
4 (1000)	69	No abnormal findings noted

---

**BODY WEIGHTS OF LIVE FETUSES SUMMARY (PER DAM)**

**GROUP 1 (0 MG/KG)**

LITTER	- MALES AND FEMALES -			----- MALES -----			----- FEMALES -----		
	N	MEAN (G)	ST. DEV.	N	MEAN (G)	ST. DEV.	N	MEAN (G)	ST. DEV.
1	8	5.3	0.2	4	5.4	0.3	4	5.2	0.2
2	14	5.0	0.2	8	5.1	0.1	6	4.8	0.2
3	13	5.0	0.3	6	5.1	0.1	7	4.8	0.3
4	13	4.6	0.3	5	4.6	0.3	8	4.5	0.3
5	12	4.6	0.3	5	4.7	0.2	7	4.5	0.4
N	60	5		28	5		32	5	
MEAN (G)	12.0	4.9		5.6	5.0		6.4	4.8	
ST. DEV.	2.3	0.3		1.5	0.3		1.5	0.3	

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**BODY WEIGHTS OF LIVE FETUSES SUMMARY (PER DAM)**

**GROUP 2 (100 MG/KG)**

LITTER	- MALES AND FEMALES -			----- MALES -----			----- FEMALES -----		
	N	MEAN (G)	ST. DEV.	N	MEAN (G)	ST. DEV.	N	MEAN (G)	ST. DEV.
6	15	4.6	0.3	5	4.7	0.2	10	4.6	0.4
7	13	4.8	0.2	6	4.9	0.1	7	4.8	0.2
8	13	4.9	0.2	7	5.0	0.2	6	4.8	0.2
9	12	4.7	0.3	6	4.9	0.2	6	4.5	0.2
10	14	4.9	0.3	8	5.1	0.3	6	4.7	0.1
N	67	5		32	5		35	5	
MEAN (G)	13.4	4.8		6.4	4.9		7.0	4.7	
ST. DEV.	1.1	0.1		1.1	0.1		1.7	0.1	

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**BODY WEIGHTS OF LIVE FETUSES SUMMARY (PER DAM)**

**GROUP 3 (300 MG/KG)**

LITTER	- MALES AND FEMALES -			----- MALES -----			----- FEMALES -----		
	N	MEAN (G)	ST. DEV.	N	MEAN (G)	ST. DEV.	N	MEAN (G)	ST. DEV.
11	13	4.9	0.3	7	5.1	0.2	6	4.7	0.4
12	13	5.1	0.3	6	5.4	0.2	7	4.9	0.2
13	13	4.9	0.3	6	5.0	0.3	7	4.9	0.2
14	6	4.7	0.2	0			6	4.7	0.2
15	14	4.9	0.4	10	5.0	0.3	4	4.6	0.4
N	59	5		29	4		30	5	
MEAN (G)	11.8	4.9		5.8	5.1		6.0	4.7	
ST. DEV.	3.3	0.2		3.6	0.2		1.2	0.1	

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**BODY WEIGHTS OF LIVE FETUSES SUMMARY (PER DAM)**

**GROUP 4 (1000 MG/KG)**

LITTER	- MALES AND FEMALES -			----- MALES -----			----- FEMALES -----		
	N	MEAN (G)	ST. DEV.	N	MEAN (G)	ST. DEV.	N	MEAN (G)	ST. DEV.
16	13	4.7	0.3	7	4.9	0.2	6	4.4	0.3
17	14	4.8	0.3	6	4.8	0.3	8	4.8	0.3
18	13	4.6	0.2	8	4.7	0.2	5	4.5	0.2
19	13	4.4	0.6	3	4.9	0.3	10	4.2	0.5
20	16	4.4	0.2	3	4.7	0.1	13	4.3	0.2
N	69	5		27	5		42	5	
MEAN (G)	13.8	4.6		5.4	4.8		8.4	4.5	
ST. DEV.	1.3	0.2		2.3	0.1		3.2	0.2	

## **9 INDIVIDUAL TABLES**

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## Clinical Signs or Observations

### Group 1 (0 mg/kg)

Female	Noted on days										
	No.	1	2	3	4	5	6	7	8	9	10
1	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-

Female	Noted on days										
	No.	12	13	14	15	16	17	18	19	20	21
1	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-

- No clinical signs or observations were noted

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## Clinical Signs or Observations

### Group 2 (100 mg/kg)

Female	Noted on days										
	No.	1	2	3	4	5	6	7	8	9	10
6	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-

Female	Noted on days										
	No.	12	13	14	15	16	17	18	19	20	21
6	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-

- No clinical signs or observations were noted

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## Clinical Signs or Observations

### Group 3 (300 mg/kg)

Female	Noted on days										
	1	2	3	4	5	6	7	8	9	10	11
11	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-

Female	Noted on days										
	12	13	14	15	16	17	18	19	20	21	
11	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-

- No clinical signs or observations were noted

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## Clinical Signs or Observations

### Group 4 (1000 mg/kg)

Female	Noted on days										
	1	2	3	4	5	6	7	8	9	10	11
16	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-

Female	Noted on days										
	12	13	14	15	16	17	18	19	20	21	
16	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-

- No clinical signs or observations were noted

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**FOOD CONSUMPTION (G/ANIMAL/DAY) OF DAMS**

**GROUP 1 (0 MG/KG)**

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DAYs ANIMAL	0-6	6-11	11-16	16-21
1	17.3	18.6	20.4	21.3
2	21.3	21.1	23.2	24.2
3	18.3	17.8	20.2	20.4
4	19.5	18.7	24.0	24.4
5	17.2	17.1	21.1	20.6

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**FOOD CONSUMPTION (G/ANIMAL/DAY) OF DAMS**

**GROUP 2 (100 MG/KG)**

---

DAYs ANIMAL	0-6	6-11	11-16	16-21
6	20.6	21.0	22.6	23.0
7	20.4	19.4	23.3	21.1
8	20.8	21.4	23.9	23.7
9	16.9	18.1	20.0	21.9
10	21.1	22.1	23.3	22.4

---

**FOOD CONSUMPTION (G/ANIMAL/DAY) OF DAMS**

**GROUP 3 (300 MG/KG)**

---

DAYs ANIMAL	0-6	6-11	11-16	16-21
11	19.8	21.3	22.5	25.6
12	20.8	20.2	22.7	23.4
13	19.4	19.6	22.0	22.9
14	15.4	15.2	18.0	18.8
15	20.7	21.1	22.8	24.8

---

---

**FOOD CONSUMPTION (G/ANIMAL/DAY) OF DAMS**

**GROUP 4 (1000 MG/KG)**

---

DAYs ANIMAL	0-6	6-11	11-16	16-21
16	20.2	20.4	22.2	23.9
17	19.8	19.8	23.1	17.1
18	19.7	16.5	19.7	20.5
19	20.9	19.8	21.5	22.1
20	23.4	23.0	20.7	19.1

---

---

**BODY WEIGHTS (GRAM) OF DAMS**

**GROUP 1 (0 MG/KG)**

DAYs ANIMAL	0	1	2	3	4	5	6	7	8
1	192	199	203	209	213	212	216	224	228
2	216	221	228	233	234	238	239	243	249
3	192	200	204	207	209	210	213	216	221
4	202	204	212	217	216	224	224	226	232
5	186	191	196	197	205	206	209	209	215

DAYs ANIMAL	9	10	11	12	13	14	15	16	17
1	230	231	240	243	249	256	260	269	276
2	252	256	262	265	272	279	289	298	312
3	222	226	231	239	247	251	258	265	277
4	230	235	245	251	258	261	267	273	287
5	219	223	230	237	241	242	250	264	264

DAYs ANIMAL	18	19	20	21
1	283	293	300	312
2	328	347	361	370
3	289	302	315	324
4	303	313	328	338
5	282	292	302	308

---

**BODY WEIGHTS (GRAM) OF DAMS**

**GROUP 2 (100 MG/KG)**

DAYs ANIMAL	0	1	2	3	4	5	6	7	8
6	193	202	206	213	217	218	220	228	230
7	203	209	216	218	222	229	230	234	239
8	197	204	211	213	220	220	227	231	233
9	193	194	201	200	207	211	212	217	217
10	199	203	208	215	219	222	228	229	234

DAYs ANIMAL	9	10	11	12	13	14	15	16	17
6	234	238	244	248	254	260	266	274	285
7	238	244	252	253	263	265	273	282	293
8	238	244	251	257	265	264	275	286	299
9	222	229	235	240	240	244	252	259	270
10	240	246	253	254	259	263	274	282	290

DAYs ANIMAL	18	19	20	21
6	300	315	332	344
7	306	322	331	338
8	310	317	338	345
9	283	289	307	313
10	302	315	329	342

---

**BODY WEIGHTS (GRAM) OF DAMS**

**GROUP 3 (300 MG/KG)**

DAYs ANIMAL	0	1	2	3	4	5	6	7	8
11	208	215	222	228	231	232	234	242	243
12	205	215	220	226	231	231	233	240	242
13	200	203	209	213	212	219	219	225	226
14	188	190	196	196	199	204	205	209	209
15	209	215	219	220	226	231	235	235	237

DAYs ANIMAL	9	10	11	12	13	14	15	16	17
11	248	255	263	268	272	280	283	296	305
12	247	248	255	260	267	274	283	291	301
13	229	236	244	245	252	258	265	272	284
14	214	217	219	222	231	233	237	244	249
15	245	252	258	259	266	273	281	288	301

DAYs ANIMAL	18	19	20	21
11	323	333	348	366
12	318	332	349	357
13	297	306	326	337
14	264	264	271	279
15	316	326	347	359

---

**BODY WEIGHTS (GRAM) OF DAMS**

**GROUP 4 (1000 MG/KG)**

DAYs ANIMAL	0	1	2	3	4	5	6	7	8
16	208	210	213	220	226	225	231	238	245
17	205	206	214	218	224	228	233	239	239
18	199	205	212	215	216	223	226	228	234
19	205	213	218	219	224	224	229	233	232
20	218	227	230	235	238	243	247	250	253

DAYs ANIMAL	9	10	11	12	13	14	15	16	17
16	247	252	260	263	269	273	278	284	298
17	242	252	256	266	269	277	283	290	299
18	234	233	239	247	253	257	263	272	281
19	237	241	249	252	254	259	265	274	280
20	260	262	271	271	276	279	280	287	295

DAYs ANIMAL	18	19	20	21
16	312	324	334	350
17	310	323	329	338
18	294	311	318	336
19	296	297	315	331
20	313	319	339	349

---

**BODY WEIGHT GAIN (%) OF DAMS**

**GROUP 1 (0 MG/KG)**

DAYs ANIMAL	0	1	2	3	4	5	6	7	8
1	-11	-8	-6	-3	-1	-2	0	3	5
2	-10	-7	-5	-2	-2	0	0	2	4
3	-10	-6	-4	-3	-2	-1	0	1	4
4	-10	-9	-5	-3	-4	0	0	1	4
5	-11	-9	-6	-5	-2	-1	0	0	3

DAYs ANIMAL	9	10	11	12	13	14	15	16	17
1	6	7	11	13	15	18	20	24	28
2	6	7	10	11	14	17	21	25	31
3	4	6	9	12	16	18	21	24	30
4	3	5	9	12	15	16	19	22	28
5	5	7	10	14	15	16	20	26	27

DAYs ANIMAL	18	19	20	21
1	31	35	39	44
2	37	45	51	55
3	36	42	48	52
4	35	40	46	51
5	35	40	45	48

---

**BODY WEIGHT GAIN (%) OF DAMS**

**GROUP 2 (100 MG/KG)**

DAY ANIMAL	0	1	2	3	4	5	6	7	8
6	-12	-8	-6	-3	-1	-1	0	4	5
7	-12	-9	-6	-5	-4	-1	0	2	4
8	-13	-10	-7	-6	-3	-3	0	2	3
9	-9	-8	-5	-6	-3	-1	0	2	2
10	-13	-11	-9	-6	-4	-3	0	0	3

DAY ANIMAL	9	10	11	12	13	14	15	16	17
6	6	9	11	13	16	18	21	25	30
7	3	6	10	10	14	15	19	23	27
8	5	8	11	13	17	16	21	26	32
9	5	8	11	13	13	15	19	22	27
10	5	8	11	11	13	15	20	24	27

DAY ANIMAL	18	19	20	21
6	36	44	51	57
7	33	40	44	47
8	37	40	49	52
9	33	36	45	48
10	32	38	44	50

---

**BODY WEIGHT GAIN (%) OF DAMS**

**GROUP 3 (300 MG/KG)**

DAYs ANIMAL	0	1	2	3	4	5	6	7	8
11	-11	-8	-5	-3	-2	-1	0	3	4
12	-12	-8	-5	-3	-1	-1	0	3	4
13	-8	-7	-5	-3	-3	0	0	3	3
14	-8	-7	-4	-4	-3	0	0	2	2
15	-11	-8	-7	-6	-4	-2	0	0	1

DAYs ANIMAL	9	10	11	12	13	14	15	16	17
11	6	9	12	14	16	19	21	26	30
12	6	7	10	12	15	18	22	25	29
13	4	8	12	12	15	18	21	24	30
14	4	6	7	8	13	14	16	19	22
15	4	7	10	10	13	16	20	23	28

DAYs ANIMAL	18	19	20	21
11	38	42	49	56
12	37	43	50	54
13	36	40	49	54
14	29	29	32	36
15	34	39	48	53

---

**BODY WEIGHT GAIN (%) OF DAMS**

**GROUP 4 (1000 MG/KG)**

DAYs ANIMAL	0	1	2	3	4	5	6	7	8
16	-10	-9	-8	-5	-2	-3	0	3	6
17	-12	-11	-8	-6	-4	-2	0	2	3
18	-12	-9	-6	-5	-4	-1	0	1	4
19	-11	-7	-5	-4	-2	-2	0	2	1
20	-12	-8	-7	-5	-4	-2	0	1	2

DAYs ANIMAL	9	10	11	12	13	14	15	16	17
16	7	9	12	14	16	18	20	23	29
17	4	8	10	14	16	19	21	25	28
18	4	3	6	9	12	14	16	21	24
19	4	5	9	10	11	13	16	20	22
20	5	6	10	10	11	13	13	16	19

DAYs ANIMAL	18	19	20	21
16	35	40	44	52
17	33	39	41	45
18	30	38	41	49
19	29	30	38	45
20	27	29	37	41

---

**REPRODUCTION PROCESSES**  
**PARENTAL GENERATION - POST COITUM**  
**GROUP 1 (0 MG/KG)**

Female Number	Male Number	Mating Date	Pregnant	Schedule	Caesarean Section
1	808	14-JAN-09	Yes	Caes. Section	04-FEB-09
2	812	14-JAN-09	Yes	Caes. Section	04-FEB-09
3	825	14-JAN-09	Yes	Caes. Section	04-FEB-09
4	810	15-JAN-09	Yes	Caes. Section	05-FEB-09
5	805	16-JAN-09	Yes	Caes. Section	06-FEB-09

---

**REPRODUCTION PROCESSES**  
**PARENTAL GENERATION - POST COITUM**  
**GROUP 2 (100 MG/KG)**

Female Number	Male Number	Mating Date	Pregnant	Schedule	Caesarean Section
6	822	14-JAN-09	Yes	Caes. Section	04-FEB-09
7	815	15-JAN-09	Yes	Caes. Section	05-FEB-09
8	807	16-JAN-09	Yes	Caes. Section	06-FEB-09
9	827	16-JAN-09	Yes	Caes. Section	06-FEB-09
10	804	17-JAN-09	Yes	Caes. Section	07-FEB-09

**REPRODUCTION PROCESSES**  
**PARENTAL GENERATION - POST COITUM**  
**GROUP 3 (300 MG/KG)**

Female Number	Male Number	Mating Date	Pregnant	Schedule	Caesarean Section
11	817	14-JAN-09	Yes	Caes. Section	04-FEB-09
12	824	14-JAN-09	Yes	Caes. Section	04-FEB-09
13	813	15-JAN-09	Yes	Caes. Section	05-FEB-09
14	826	15-JAN-09	Yes	Caes. Section	05-FEB-09
15	818	16-JAN-09	Yes	Caes. Section	06-FEB-09

---

**REPRODUCTION PROCESSES**  
**PARENTAL GENERATION - POST COITUM**  
**GROUP 4 (1000 MG/KG)**

Female Number	Male Number	Mating Date	Pregnant	Schedule	Caesarean Section
16	821	14-JAN-09	Yes	Caes. Section	04-FEB-09
17	816	15-JAN-09	Yes	Caes. Section	05-FEB-09
18	819	15-JAN-09	Yes	Caes. Section	05-FEB-09
19	809	16-JAN-09	Yes	Caes. Section	06-FEB-09
20	801	21-JAN-09	Yes	Caes. Section	11-FEB-09

---

**REPRODUCTION DATA**

**GROUP 1 (0 MG/KG)**

FEMALE	CORP. LUTEA	IMPL.	-EMBRYONIC DEATHS--			TOTAL	LIVE		FETUSES		MALF.	
			TOTAL	EMBR. STAGE	FETAL STAGE		MALE	FEM.	DEAD MALE	FEM.	MALE	FEM.
1	12	10	2	2	0	8	4	4	0	0	0	0
2	15	14	0	0	0	14	8	6	0	0	0	0
3	16	16	3	3	0	13	6	7	0	0	0	0
4	13	13	0	0	0	13	5	8	0	0	0	0
5	12	12	0	0	0	12	5	7	0	0	0	0
TOTAL	68	65	5	5	0	60	28	32	0	0	0	0
MEAN	13.6	13.0	1.0	1.0		12.0	5.6	6.4				
ST.DEV.	1.8	2.2	1.4	1.4		2.3	1.5	1.5				

---

**REPRODUCTION DATA**

**GROUP 2 (100 MG/KG)**

FEMALE	CORP. LUTEA	IMPL.	-EMBRYONIC DEATHS--			TOTAL	FETUSES				MALF.	
			TOTAL	EMBR. STAGE	FETAL STAGE		LIVE MALE	LIVE FEM.	DEAD MALE	DEAD FEM.		
6	15	15	0	0	0	15	5	10	0	0	0	0
7	14	14	1	1	0	13	6	7	0	0	0	0
8	14	13	0	0	0	13	7	6	0	0	0	0
9	12	12	0	0	0	12	6	6	0	0	0	0
10	15	14	0	0	0	14	8	6	0	0	0	0
TOTAL	70	68	1	1	0	67	32	35	0	0	0	0
MEAN	14.0	13.6	0.2	0.2		13.4	6.4	7.0				
ST.DEV.	1.2	1.1	0.4	0.4		1.1	1.1	1.7				

---

**REPRODUCTION DATA**

**GROUP 3 (300 MG/KG)**

FEMALE	CORP. LUTEA	IMPL.	-EMBRYONIC DEATHS--			TOTAL	FETUSES				MALF.	
			TOTAL	EMBR. STAGE	FETAL STAGE		LIVE	DEAD	MALE	FEM.	MALE	FEM.
11	15	14	1	1	0	13	7	6	0	0	0	0
12	14	13	0	0	0	13	6	7	0	0	0	0
13	14	14	1	1	0	13	6	7	0	0	0	0
14	9	9	3	3	0	6	0	6	0	0	0	0
15	14	14	0	0	0	14	10	4	0	0	0	0
TOTAL	66	64	5	5	0	59	29	30	0	0	0	0
MEAN	13.2	12.8	1.0	1.0		11.8	5.8	6.0				
ST.DEV.	2.4	2.2	1.2	1.2		3.3	3.6	1.2				

---

**REPRODUCTION DATA**

**GROUP 4 (1000 MG/KG)**

FEMALE	CORP. LUTEA	IMPL.	-EMBRYONIC DEATHS--			TOTAL	LIVE		FETUSES		MALF.	
			TOTAL	EMBR. STAGE	FETAL STAGE		MALE	FEM.	DEAD MALE	FEM.	MALE	FEM.
16	13	13	0	0	0	13	7	6	0	0	0	0
17	15	14	0	0	0	14	6	8	0	0	0	0
18	13	13	0	0	0	13	8	5	0	0	0	0
19	14	13	0	0	0	13	3	10	0	0	0	0
20	18	18	2	2	0	16	3	13	0	0	0	0
TOTAL	73	71	2	2	0	69	27	42	0	0	0	0
MEAN	14.6	14.2	0.4	0.4		13.8	5.4	8.4				
ST.DEV.	2.1	2.2	0.9	0.9		1.3	2.3	3.2				

**DISTRIBUTION WITHIN UTERUS**

**GROUP 1 (0 MG/KG)**

IMPLAN-TATIONS	LEFT HORN			POSITION		RIGHT HORN			IMPLAN-TATIONS	
	EMPTY SITES	RESORPTIONS EMBR.	FETUSES FETAL	DEAD	LIVE	IN UTERUS	FETUSES LIVE	RESORPTIONS FETAL EMBR.	EMPTY SITES	
5	.	.	.	.	5	< 1>	5	.	.	5
5	.	2	.	.	3	< 2>	5	.	.	5
5	.	1	.	.	4	< 3>	5	.	.	5
5	.	1	.	.	4	< 4>	4	.	.	4
4	.	.	.	.	4	< 5>	4	.	.	4
4	.	.	.	.	4	< 6>	3	.	.	3
3	.	1	.	.	2	< 7>	1	.	.	1
3	.	.	.	.	3	< 8>	1	.	.	1
2	.	.	.	.	2	< 9>				
1	.	.	.	.	1	<10>				

IMPLANTATION SITES

```
5 ===== < 1> ===== 5
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5 ===== < 3> ===== 5
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LIVE FETUSES

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RESORPTIONS

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1 = < 7>
< 8>
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<10>
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**DISTRIBUTION WITHIN UTERUS**

**GROUP 2 (100 MG/KG)**

IMPLAN-TATIONS	LEFT HORN			POSITION		RIGHT HORN			IMPLAN-TATIONS	
	EMPTY SITES	RESORPTIONS EMBR.	FETUSES FETAL	DEAD	LIVE	IN UTERUS	FETUSES LIVE	RESORPTIONS FETAL EMBR.	EMPTY SITES	
5	.	.	.	.	5	< 1>	5	.	.	5
5	.	.	.	.	5	< 2>	5	.	.	5
5	.	.	.	.	5	< 3>	5	.	.	5
5	.	.	.	.	5	< 4>	5	.	.	5
5	.	.	.	.	5	< 5>	5	.	.	5
3	.	.	.	.	3	< 6>	5	.	.	5
2	.	1	.	.	1	< 7>	2	.	.	2
2	.	.	.	.	2	< 8>	2	.	.	2
1	.	.	.	.	1	< 9>	1	.	.	1

IMPLANTATION SITES

```

5 ===== < 1> ===== 5
5 ===== < 2> ===== 5
5 ===== < 3> ===== 5
5 ===== < 4> ===== 5
5 ===== < 5> ===== 5
3 === < 6> ===== 5
2 == < 7> == 2
2 == < 8> == 2
1 = < 9> = 1

```

LIVE FETUSES

```

5 ===== < 1> ===== 5
5 ===== < 2> ===== 5
5 ===== < 3> ===== 5
5 ===== < 4> ===== 5
5 ===== < 5> ===== 5
3 === < 6> ===== 5
1 = < 7> == 2
2 == < 8> == 2
1 = < 9> = 1

```

RESORPTIONS

```

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< 4>
< 5>
< 6>
1 = < 7>
< 8>
< 9>

```

**DISTRIBUTION WITHIN UTERUS**

**GROUP 3 (300 MG/KG)**

IMPLAN-TATIONS	LEFT HORN			POSITION		RIGHT HORN			IMPLAN-TATIONS	
	EMPTY SITES	RESORPTIONS EMBR.	FETUSES FETAL	DEAD	LIVE	IN UTERUS	FETUSES	RESORPTIONS FETAL	EMPTY SITES	
5	.	1	.	.	4	< 1>	5	.	.	5
5	.	.	.	.	5	< 2>	5	.	.	5
5	.	1	.	.	4	< 3>	5	.	.	5
5	.	.	.	.	5	< 4>	2	.	.	4
5	.	.	.	.	4	< 5>	4	.	.	4
5	.	1	.	.	5	< 6>	1	.	.	1
4	.	.	.	.	4	< 7>				
3	.	.	.	.	3	< 8>				
3	.	.	.	.	3	< 9>				

IMPLANTATION SITES

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5 ===== < 2> ===== 5  
5 ===== < 3> ===== 5  
5 ===== < 4> ===== 4  
5 ===== < 5> ===== 4  
5 ===== < 6> = 1  
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3 === < 8>  
3 === < 9>

LIVE FETUSES

4 ===== < 1> ===== 5  
5 ===== < 2> ===== 5  
4 ===== < 3> ===== 5  
5 ===== < 4> == 2  
4 ===== < 5> ===== 4  
5 ===== < 6> = 1  
4 ===== < 7>  
3 === < 8>  
3 === < 9>

RESORPTIONS

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1 = < 3>  
    < 4> == 2  
1 = < 5>  
    < 6>  
    < 7>  
    < 8>  
    < 9>

**DISTRIBUTION WITHIN UTERUS**

**GROUP 4 (1000 MG/KG)**

IMPLAN-TATIONS	LEFT HORN			POSITION		RIGHT HORN			IMPLAN-TATIONS	
	EMPTY SITES	RESORPTIONS EMBR.	FETUSES FETAL	DEAD	LIVE	IN UTERUS	FETUSES LIVE	RESORPTIONS FETAL EMBR.	EMPTY SITES	
5	.	.	.	.	5	< 1>	5	.	.	5
5	.	.	.	.	5	< 2>	5	.	.	5
5	.	.	.	.	5	< 3>	4	.	.	5
3	.	.	.	.	3	< 4>	5	.	.	5
3	.	.	.	.	3	< 5>	5	.	.	5
3	.	.	.	.	3	< 6>	4	.	.	4
2	.	.	.	.	2	< 7>	4	.	.	4
2	.	.	.	.	2	< 8>	2	.	.	2
1	.	1	.	.	.	< 9>	2	.	.	2
1	.	.	.	.	1	<10>	2	.	.	2
1	.	.	.	.	1	<11>	1	.	.	1

IMPLANTATION SITES

```
5 ===== < 1> ===== 5
5 ===== < 2> ===== 5
5 ===== < 3> ===== 5
3 === < 4> ===== 5
3 === < 5> ===== 5
3 === < 6> ===== 4
2 == < 7> ===== 4
2 == < 8> == 2
1 = < 9> == 2
1 = <10> == 2
1 = <11> = 1
```

LIVE FETUSES

```
5 ===== < 1> ===== 5
5 ===== < 2> ===== 5
5 ===== < 3> ===== 4
3 === < 4> ===== 5
3 === < 5> ===== 5
3 === < 6> ===== 4
2 == < 7> ===== 4
2 == < 8> == 2
< 9> == 2
1 = <10> == 2
1 = <11> = 1
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RESORPTIONS

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1 = < 9>
<10>
<11>
```

**CONTENTS OF UTERUS (PLAN VIEW)**

**GROUP 1 (0 MG/KG)**

CORPORA LUTEA L/R	--- FETUSES LEFT HORN ---				IMPLANTATION SITES <POS. IN UTERUS>			--- FETUSES RIGHT HORN --			
	IDENT	SEX	WEIGHT (GRAM)	ANOM. MALF.				IDENT	SEX	WEIGHT (GRAM)	ANOM. MALF.
FEMALE 1 5/7	1	M	5.8		LIVE <1>	LIVE		3	F	5.5	
					E.RES <2>	LIVE		4	F	5.1	
					E.RES <3>	LIVE		5	F	5.1	
	2	M	5.2		LIVE <4>	LIVE		6	M	5.2	
						<5>	LIVE	7	M	5.3	
						<6>	LIVE	8	F	5.0	
FEMALE 2 7/8	9	F	5.1		LIVE <1>	LIVE		15	M	5.2	
	10	M	5.2		LIVE <2>	LIVE		16	M	5.0	
	11	M	5.1		LIVE <3>	LIVE		17	F	4.8	
	12	F	4.8		LIVE <4>	LIVE		18	F	4.6	
	13	M	4.8		LIVE <5>	LIVE		19	F	5.0	
	14	F	4.7		LIVE <6>	LIVE		20	M	5.0	
						<7>	LIVE	21	M	5.1	
						<8>	LIVE	22	M	5.1	
FEMALE 3 10/6	23	M	5.3		LIVE <1>	LIVE		30	F	5.0	
					E.RES <2>	LIVE		31	M	5.3	
	24	M	5.1		LIVE <3>	LIVE		32	M	4.9	
	25	M	5.2		E.RES <4>	LIVE		33	F	5.0	
	26	M	5.0		LIVE <5>	LIVE		34	F	4.9	
					LIVE <6>	LIVE		35	F	4.3	
					E.RES <7>						
	27	F	4.9		LIVE <8>						
	28	F	4.9		LIVE <9>						
	29	F	4.7		LIVE <10>						
FEMALE 4 8/5	90	F	4.6		LIVE <1>	LIVE		98	F	4.6	
	91	F	4.1		LIVE <2>	LIVE		99	F	4.7	
	92	M	4.3		LIVE <3>	LIVE		100	F	5.0	
	93	M	4.7		LIVE <4>	LIVE		101	F	4.6	
	94	F	4.4		LIVE <5>	LIVE		102	M	4.9	
	95	M	4.9		LIVE <6>						
	96	F	4.3		LIVE <7>						
	97	M	4.2		LIVE <8>						
FEMALE 5 9/3	162	F	4.3		LIVE <1>	LIVE		171	F	4.6	
	163	F	3.7		LIVE <2>	LIVE		172	F	4.6	
	164	F	4.7		LIVE <3>	LIVE		173	F	4.8	
	165	F	4.7		LIVE <4>						
	166	M	4.8		LIVE <5>						
	167	M	4.5		LIVE <6>						
	168	M	5.1		LIVE <7>						
	169	M	4.6		LIVE <8>						
	170	M	4.8		LIVE <9>						

LIVE - LIVE FETUS      E.RES - EMBRYONIC RESORPTION  
DEAD - DEAD FETUS      F.RES - FETAL RESORPTION

**CONTENTS OF UTERUS (PLAN VIEW)**

**GROUP 2 (100 MG/KG)**

CORPORA LUTEA L/R	--- FETUSES LEFT HORN ---				IMPLANTATION SITES <POS. IN UTERUS>		--- FETUSES RIGHT HORN --			
	IDENT	SEX	WEIGHT (GRAM)	ANOM. MALF.			IDENT	SEX	WEIGHT (GRAM)	ANOM. MALF.
<b>FEMALE 6</b>										
9/6	36	M	4.7		LIVE	<1>	LIVE	45	F	5.1
	37	F	4.8		LIVE	<2>	LIVE	46	F	4.6
	38	F	4.3		LIVE	<3>	LIVE	47	F	4.8
	39	F	4.8		LIVE	<4>	LIVE	48	F	3.9
	40	F	4.4		LIVE	<5>	LIVE	49	M	4.6
	41	F	4.3		LIVE	<6>	LIVE	50	M	5.1
	42	M	4.5		LIVE	<7>				
	43	M	4.8		LIVE	<8>				
	44	F	5.0		LIVE	<9>				
<b>FEMALE 7</b>										
8/6	103	F	4.4		LIVE	<1>	LIVE	110	M	5.0
	104	F	4.6		LIVE	<2>	LIVE	111	F	5.2
	105	M	5.0		LIVE	<3>	LIVE	112	M	4.8
	106	M	4.8		LIVE	<4>	LIVE	113	F	4.8
	107	F	4.8		LIVE	<5>	LIVE	114	F	4.8
	108	F	4.9		LIVE	<6>	LIVE	115	M	4.8
	109	M	4.9		E.RES	<7>				
					LIVE	<8>				
<b>FEMALE 8</b>										
6/8	174	M	4.8		LIVE	<1>	LIVE	179	F	5.1
	175	M	4.9		LIVE	<2>	LIVE	180	M	5.0
	176	M	5.3		LIVE	<3>	LIVE	181	M	5.1
	177	F	4.8		LIVE	<4>	LIVE	182	F	4.6
	178	F	4.9		LIVE	<5>	LIVE	183	F	4.8
						<6>	LIVE	184	F	4.6
						<7>	LIVE	185	M	4.9
						<8>	LIVE	186	M	5.0
<b>FEMALE 9</b>										
6/6	187	M	5.0		LIVE	<1>	LIVE	193	F	4.8
	188	M	4.9		LIVE	<2>	LIVE	194	F	4.4
	189	M	5.2		LIVE	<3>	LIVE	195	M	5.0
	190	M	4.7		LIVE	<4>	LIVE	196	F	4.5
	191	F	4.7		LIVE	<5>	LIVE	197	M	4.6
	192	F	4.1		LIVE	<6>	LIVE	198	F	4.5
<b>FEMALE 10</b>										
5/10	226	M	5.3		LIVE	<1>	LIVE	231	M	5.1
	227	M	5.4		LIVE	<2>	LIVE	232	M	4.9
	228	M	5.4		LIVE	<3>	LIVE	233	F	4.7
	229	F	4.7		LIVE	<4>	LIVE	234	F	4.8
	230	F	4.7		LIVE	<5>	LIVE	235	F	4.4
						<6>	LIVE	236	M	4.7
						<7>	LIVE	237	F	4.6
						<8>	LIVE	238	M	5.1
						<9>	LIVE	239	M	4.8

LIVE - LIVE FETUS      E.RES - EMBRYONIC RESORPTION  
DEAD - DEAD FETUS      F.RES - FETAL RESORPTION

**CONTENTS OF UTERUS (PLAN VIEW)**

**GROUP 3 (300 MG/KG)**

CORPORA LUTEA L/R	--- FETUSES LEFT HORN ---				IMPLANTATION SITES <POS. IN UTERUS>		--- FETUSES RIGHT HORN --			
	IDENT	SEX	WEIGHT (GRAM)	ANOM. MALF.			IDENT	SEX	WEIGHT (GRAM)	ANOM. MALF.
FEMALE 11 9/6	51	F	4.0		LIVE	<1>	LIVE	60	M	5.2
	52	M	5.3		LIVE	<2>	LIVE	61	M	4.9
	53	F	4.9		LIVE	<3>	LIVE	62	M	4.9
	54	F	4.9		LIVE	<4>	E.RES			
	55	M	5.0		LIVE	<5>	LIVE	63	M	5.1
	56	F	4.8		LIVE	<6>				
	57	F	5.0		LIVE	<7>				
	58	M	5.5		LIVE	<8>				
	59	F	4.8		LIVE	<9>				
FEMALE 12 8/6	64	M	5.5		LIVE	<1>	LIVE	71	M	5.8
	65	F	5.0		LIVE	<2>	LIVE	72	F	4.9
	66	M	5.4		LIVE	<3>	LIVE	73	F	5.0
	67	M	5.1		LIVE	<4>	LIVE	74	F	5.0
	68	F	4.9		LIVE	<5>	LIVE	75	M	5.3
	69	F	4.5		LIVE	<6>	LIVE	76	M	5.4
	70	F	5.0		LIVE	<7>				
FEMALE 13 9/5	116	M	5.3		LIVE	<1>	LIVE	125	M	4.9
	117	M	5.3		LIVE	<2>	LIVE	126	F	4.7
	118	M	4.9		LIVE	<3>	LIVE	127	F	5.0
	119	M	4.8		LIVE	<4>	E.RES			
	120	F	4.7		LIVE	<5>	LIVE	128	F	5.1
	121	F	5.2		LIVE	<6>				
	122	F	4.7		LIVE	<7>				
	123	F	4.7		LIVE	<8>				
	124	M	4.5		LIVE	<9>				
FEMALE 14 6/3					E.RES	<1>	LIVE	132	F	4.6
	129	F	4.7		LIVE	<2>	LIVE	133	F	4.6
	130	F	4.5		E.RES	<3>	LIVE	134	F	5.1
	131	F	4.5		LIVE	<4>				
					E.RES	<5>				
					LIVE	<6>				
FEMALE 15 9/5	199	M	5.0		LIVE	<1>	LIVE	208	M	5.2
	200	M	5.0		LIVE	<2>	LIVE	209	M	5.4
	201	F	4.9		LIVE	<3>	LIVE	210	M	5.0
	202	M	4.6		LIVE	<4>	LIVE	211	M	4.8
	203	M	4.6		LIVE	<5>	LIVE	212	F	4.7
	204	M	5.2		LIVE	<6>				
	205	M	5.1		LIVE	<7>				
	206	F	4.7		LIVE	<8>				
	207	F	4.0		LIVE	<9>				

LIVE - LIVE FETUS      E.RES - EMBRYONIC RESORPTION  
DEAD - DEAD FETUS      F.RES - FETAL RESORPTION

**CONTENTS OF UTERUS (PLAN VIEW)**

**GROUP 4 (1000 MG/KG)**

CORPORA LUTEA L/R	--- FETUSES LEFT HORN ---				IMPLANTATION SITES <POS. IN UTERUS>		--- FETUSES RIGHT HORN --			
	IDENT	SEX	WEIGHT (GRAM)	ANOM. MALF.			IDENT	SEX	WEIGHT (GRAM)	ANOM. MALF.
<b>FEMALE 16</b>										
6/7	77	M	5.1		LIVE	<1>	LIVE	83	F	4.0
	78	M	4.8		LIVE	<2>	LIVE	84	M	4.4
	79	F	4.8		LIVE	<3>	LIVE	85	F	4.4
	80	F	4.6		LIVE	<4>	LIVE	86	M	5.0
	81	M	4.9		LIVE	<5>	LIVE	87	M	4.8
	82	M	5.0		LIVE	<6>	LIVE	88	F	4.4
						<7>	LIVE	89	F	4.4
<b>FEMALE 17</b>										
4/11	135	M	5.1		LIVE	<1>	LIVE	138	M	5.0
	136	F	5.1		LIVE	<2>	LIVE	139	F	5.1
	137	M	5.1		LIVE	<3>	LIVE	140	F	4.9
						<4>	LIVE	141	M	4.8
						<5>	LIVE	142	M	4.8
						<6>	LIVE	143	M	4.2
						<7>	LIVE	144	F	4.5
						<8>	LIVE	145	F	4.7
						<9>	LIVE	146	F	4.8
						<10>	LIVE	147	F	4.3
						<11>	LIVE	148	F	4.9
<b>FEMALE 18</b>										
8/5	149	F	4.6		LIVE	<1>	LIVE	157	M	4.6
	150	M	4.6		LIVE	<2>	LIVE	158	F	4.4
	151	M	4.8		LIVE	<3>	LIVE	159	M	4.6
	152	M	4.6		LIVE	<4>	LIVE	160	F	4.8
	153	M	4.9		LIVE	<5>	LIVE	161	M	4.8
	154	M	4.4		LIVE	<6>				
	155	F	4.4		LIVE	<7>				
	156	F	4.4		LIVE	<8>				
<b>FEMALE 19</b>										
4/10	213	M	4.9		LIVE	<1>	LIVE	216	M	5.2
	214	F	4.8		LIVE	<2>	LIVE	217	F	4.3
	215	F	4.9		LIVE	<3>	LIVE	218	F	4.6
						<4>	LIVE	219	F	4.2
						<5>	LIVE	220	F	4.4
						<6>	LIVE	221	M	4.7
						<7>	LIVE	222	F	3.9
						<8>	LIVE	223	F	3.1
						<9>	LIVE	224	F	4.2
						<10>	LIVE	225	F	4.0
<b>FEMALE 20</b>										
11/7	240	F	4.6		LIVE	<1>	LIVE	250	F	4.5
	241	F	4.3		LIVE	<2>	LIVE	251	F	4.2
	242	F	4.0		LIVE	<3>	E.RES			
	243	F	4.4		LIVE	<4>	LIVE	252	F	4.5
	244	F	4.1		LIVE	<5>	LIVE	253	M	4.7
	245	F	4.4		LIVE	<6>	LIVE	254	M	4.7
	246	M	4.6		LIVE	<7>	LIVE	255	F	4.1
	247	F	4.1		LIVE	<8>				
						E.RES	<9>			
	248	F	4.3		LIVE	<10>				
	249	F	4.5		LIVE	<11>				

LIVE - LIVE FETUS      E.RES - EMBRYONIC RESORPTION  
DEAD - DEAD FETUS      F.RES - FETAL RESORPTION

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## Macroscopical Findings

### Group 1 (0 mg/kg)

Female	Macroscopical findings
No.	
1	No macroscopical findings were noted
2	No macroscopical findings were noted
3	No macroscopical findings were noted
4	No macroscopical findings were noted
5	No macroscopical findings were noted

### Group 2 (100 mg/kg)

Female	Macroscopical findings
No.	
6	No macroscopical findings were noted
7	No macroscopical findings were noted
8	No macroscopical findings were noted
9	No macroscopical findings were noted
10	No macroscopical findings were noted

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## Macroscopical Findings

### Group 3 (300 mg/kg)

Female	Macroscopical findings
No.	
11	No macroscopical findings were noted
12	No macroscopical findings were noted
13	No macroscopical findings were noted
14	No macroscopical findings were noted
15	No macroscopical findings were noted

### Group 4 (1000 mg/kg)

Female	Macroscopical findings
No.	
16	No macroscopical findings were noted
17	No macroscopical findings were noted
18	No macroscopical findings were noted
19	No macroscopical findings were noted
20	No macroscopical findings were noted

**APPENDIX I:**  
**CHEMICAL ANALYSIS OF FEED**

**LUFA-ITL GmbH**

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**Laborgruppe**  
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LUFA - ITL Dr.-Hell-Str. 6, 24107 Kiel

PROVIMI KLIBA AG  
RINAUSTRASSE  
4303 KAISERAUGST / SCHWEIZ  
SCHWEIZ

Date 26.09.2008  
Customer no. 1209835  
Page 1 of 2

**TEST REPORT**

**Sample No. 529211**

Order No. 543616 GLP Schadstoffuntersuchung  
Sample Arrival 11.09.2008  
Sample code M/R Haltung GLP  
Alleinfuttermittel für Mäuse und Ratten  
Rezeptur 3433  
Fabr.-Code: 0809007 - Fabr.: 09.09.08  
GLP-Batch: 61/08

Sample packing plastic bag

Trace-Elements/Heavy-Metals	Unit	limits acc. GV-SOLAS		Result A-08-2001	Substance	Method
		OM	VDLUFA VII 2.2.2.6			
Copper	mg/kg	13,1			OM	acc. to VDLUFA VII 2.2.2.6; HR-ICPMS
Selenium	mg/kg	0,33			OM	acc. to VDLUFA VII 2.2.2.6; HR-ICPMS
Cadmium	mg/kg	0,06	0,4		OM	acc. to VDLUFA VII 2.2.2.6; HR-ICPMS
Lead	mg/kg	<0,10	1,5		OM	acc. to VDLUFA VII 2.2.2.6; HR-ICPMS
Mercury	mg/kg	<0,02	0,1		OM	§64 LFGB L00.00-19
Arsenic	mg/kg	0,26	1		OM	acc. to VDLUFA VII 2.2.2.6; HR-ICPMS

**Mycotoxins**

Aflatoxine B1	µg/kg	<1,00	10	OM	HPLC-VDLUFA Bd. III, 16.1.4
Aflatoxine B2	µg/kg	<1,00	5	OM	HPLC-VDLUFA Bd. III, 16.1.4
Aflatoxine G1	µg/kg	<1,00	5	OM	HPLC-VDLUFA Bd. III, 16.1.4
Aflatoxine G2	µg/kg	<1,00	5	OM	HPLC-VDLUFA Bd. III, 16.1.4
<b>Sum Aflatoxines</b>	µg/kg	n.d.		OM	calculated

**PCB**

PCB 28	mg/kg	<0,0020		OM	acc. to §64 LFGB L00.00-34
PCB 52	mg/kg	<0,0020		OM	acc. to §64 LFGB L00.00-34
PCB 101	mg/kg	<0,0020		OM	acc. to §64 LFGB L00.00-34
PCB 118	mg/kg	<0,0020		OM	acc. to §64 LFGB L00.00-34
PCB 138	mg/kg	<0,0020		OM	acc. to §64 LFGB L00.00-34
PCB 153	mg/kg	<0,0020		OM	acc. to §64 LFGB L00.00-34
PCB 180	mg/kg	<0,0020		OM	acc. to §64 LFGB L00.00-34
<b>sum PCB</b>	mg/kg	n.d.	0,05	OM	calculated

**Organochlorous-Pesticides GC-Multiresidueanalysis**

Dieldrin	mg/kg	<0,002		OM	acc. to §64 LFGB L00.00-34
HCH-gamma (gammexane)	mg/kg	<0,002	0,1	OM	acc. to §64 LFGB L00.00-34
Heptachlor	mg/kg	<0,00200		OM	acc. to §64 LFGB L00.00-34
Heptachlorepoxyde-cis	mg/kg	<0,00200		OM	acc. to §64 LFGB L00.00-34
Heptachlorepoxyde-trans	mg/kg	<0,00200		OM	acc. to §64 LFGB L00.00-34
<i>o,p</i> -DDD	mg/kg	<0,00200		OM	acc. to §64 LFGB L00.00-34



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Date 26.09.2008  
Customer no. 1209835  
Page 2 of 2

**Sample No. 529211**

Unit	Result A-08-2001	limits acc. GV-SOLAS		Substance	Method
		<0,00200	n.d.		
<i>o,p</i> -DDE	mg/kg	<0,00200		OM	acc. to §64 LFGB L00.00-34
<i>o,p</i> -DDT	mg/kg	<0,002		OM	acc. to §64 LFGB L00.00-34
<i>p,p</i> -DDD	mg/kg	<0,00200		OM	acc. to §64 LFGB L00.00-34
<i>p,p</i> -DDE	mg/kg	<0,00200		OM	acc. to §64 LFGB L00.00-34
<i>p,p</i> -DDT	mg/kg	<0,00200		OM	acc. to §64 LFGB L00.00-34
<b>Sum DDTs</b>	mg/kg	n.d.	0,05	OM	calculated
<b>Sum Heptachlor</b>	mg/kg	n.d.	0,01	OM	calculated
<b>Organophosphorous Pesticides GC-Multiresidueanalysis</b>					
Malathion	mg/kg	<0,010	1	OM	acc. to §64 LFGB L00.00-34
<b>nitrosamines</b>					
<i>N</i> -Nitrosodibutylamin	µg/kg	<5,00		OM	GC-Inhousemethod
<i>N</i> -Nitrosodiethylamin	µg/kg	<5,00	10	OM	GC-Inhousemethod
<i>N</i> -Nitrosodiisopropylamin	µg/kg	<5,00		OM	GC-Inhousemethod
<i>N</i> -Nitrosodimethylamin	µg/kg	<5,00	10	OM	GC-Inhousemethod
<i>N</i> -Nitrosodipropylamin	µg/kg	<5,00		OM	GC-Inhousemethod
<i>N</i> -Nitrosomethyllethylamin	µg/kg	<5,00		OM	GC-Inhousemethod
<i>N</i> -Nitrosomorphanolin	µg/kg	<5,00		OM	GC-Inhousemethod
<i>N</i> -Nitrosopiperidin	µg/kg	<5,00		OM	GC-Inhousemethod
<i>N</i> -Nitrosopyrrolidin	µg/kg	<5,00		OM	GC-Inhousemethod
<b>Sum Nitrosamines</b>	µg/kg	n.d.		OM	calculated
<b>Estrogenes</b>					
dienestrol	µg/kg	<10,0		OM	no object
diethyl stilbestrol	µg/kg	<1,00		OM	no object
hexestrol	µg/kg	<2,00		OM	no object
<b>Sum Estrogenes</b>	µg/kg	n.d.		OM	calculated

Explanation: "<", n.d.: not detected, below limit of detection .

The actual limit of detection can be different to the standard value for a particular analysis due to matrix effects or insufficient sample volume.

Remark: OM=original matter, DM=dry matter

LUFA - ITL Dr. Wehage, Tel. 0431/1228-220

This electronically transmitted report was checked and released. It's in accordance with the requirements of DIN EN ISO/IEC 17025:2005 for simplified reports and valid without signature.

Copies

PROVIMI KLIBA AG

External laboratory

Parameter

Sum Nitrosamines

External laboratory

Zentrale Analytik - Organische Henkel KGaA, Henkelstrasse 67 , Gebäude Z43, 40589 Düsseldorf

Sum Estrogenes

TIERGESUNDHEITSDIENST, SENATOR-GERAUER STR 23, 85586 POING

The analytical results are valid for the delivered sample material only. The testing period is the time between the receipt of the sample and the reporting date. Validation of results is not possible for samples of unknown origin .



**APPENDIX II:**  
**DRINKING WATER ANALYSIS**

## BACTERIOLOGICAL ASSAY OF DRINKING WATER, FÜLLINSDORF

Official Laboratory

Liestal, September 03, 2008

Basel-Landschaft

Ref.no. 200069242

Sampling point: 35.991.N Net water RCC Ltd, Füllinsdorf,  
Bldg. 2

Sampled on: July 29, 2008

Sample:

Time of sampling	7.45
Water temperature (°C)	13.9

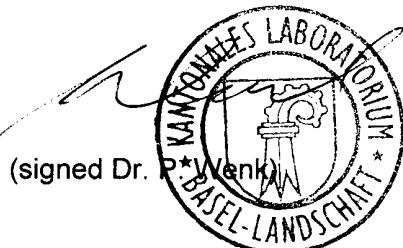
### BACTERIOLOGICAL TEST:

Aerobic mesophilic bacteria / ml	13
E.coli / 100 ml	0
Enterococci / 100 ml	0
Clostridium perfringens	0

### ASSESSMENT:

At the time of sampling, the tested bacteriological parameters met the requirements for drinking water according to "Artikel 3 der Verordnung über Trink-, Quell-, und Mineralwasser (SR 817.022.102)

Official Laboratory  
The Official Chemist



(signed Dr. P. Wenk)

## CHEMICAL WATER ANALYSIS, FÜLLINSDORF

Official Laboratory  
Basel-Landschaft

Liestal, September 03, 2008  
Ref. no. 200069216

Sampling point:

35.991.N, Net water  
RCC Ltd, Füllinsdorf, Bldg.2

Sampled on:

July 29, 2008

Time of sampling

7.45

Water temperature (°C)

13.9

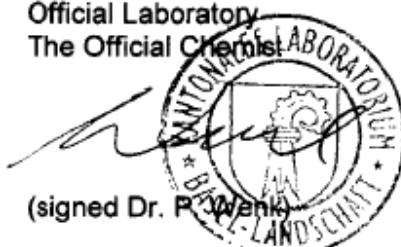
### CHEMICAL TEST:

Appearance		clear, colourless
Odor		not remarkable
Taste		not remarkable
UV-absorption at 254 nm/100 cm		1.61
Conductivity	µS/cm	634
Oxygen demand	(KMnO <sub>4</sub> cons.) mg/l	2.1
Turbidity	FNU	0.21
Chloride	Cl <sup>-</sup> mg/l	27.1
Nitrate	NO <sub>3</sub> <sup>-</sup> mg/l	22.3
Sulphate	SO <sub>4</sub> <sup>--</sup> mg/l	88.0
Nitrite	NO <sub>2</sub> <sup>-</sup> mg/l	<.005
Total hardness	fr.H°	33.1
Calcium	Ca <sup>++</sup> mg/l	115.6
Magnesium	Mg <sup>++</sup> mg/l	10.2
Sodium	Na <sup>+</sup> mg/l	19.2
Kalium	K mg/l	4.4

### ASSESSMENT:

At the time of sampling, the tested chemical parameters met the requirements for drinking water according to article "Artikel 3 der Verordnung über Trink-, Quell-, und Mineralwasser (SR 817.022.102)

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**CONTAMINANT ASSAY OF DRINKING WATER, FÜLLINSDORF**

RCC Study No.: C11840  
Date of Sampling: July, 29, 2008  
Sample: H<sub>2</sub>O, RCC Ltd, Füllinsdorf, Bldg. 2, Sanitärzentrale

PARAMETER	ASSAY LEVEL µg/l	LIMIT * µg/l
Lindane	< 0.05	0.1
Heptachlor	< 0.05	0.1
Malathion	< 0.05	0.1
DDT, total	< 0.05	0.1
Dieldrin	< 0.05	0.1
Cadmium	< 0.5	5
Arsenic	< 3	50
Lead	< 3	50
Mercury	< 1	1
Selenium	< 3	10
Copper	< 4	1500
PCBs (28, 52, 101, 138, 153, 180)	< 0.05	0.1
Nitrosamines, total (DMN, DEN, NPIP, NMORPH)	< 0.05	-----

< 0.05 = less than 0.05 microgram per liter

\* Schweizer Lebensmittelbuch

Issued by

Dr. D. Flade



September 26, 2008

**APPENDIX III:**  
**CERTIFICATE OF ANALYSIS**

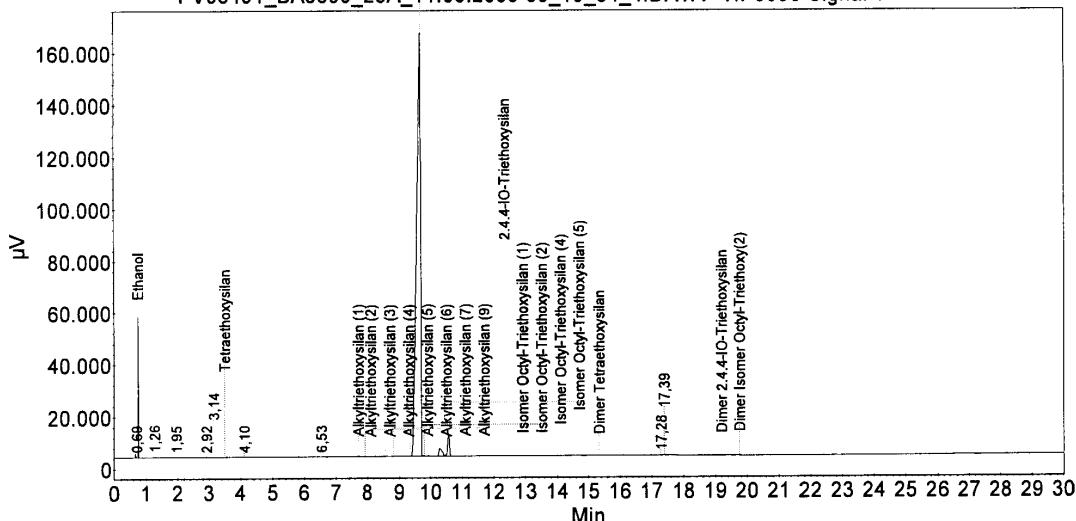


Wacker Chemie AG, WL-C-A-B  
Betriebsanalytik / Quality Control

Probenbezeichnung: 109807 - SILRES BS 1701, KH07241  
Datenfile: PV03491\_BA5890\_28A\_11.08.2008 09\_19\_54\_4  
Auftragsdaten: Auftrag Q-00050236-05AUG2008, Probe 200603, Test 552899, Prüflos 000003258399  
Analyse am: 11.08.2008 09:21:55  
Methode: PV03491\_BA5890\_28A  
Gerät: BA5890\_28  
Säulenparameter: DB-1 Nr.54, 30m, 0,53mm, 1,5µm  
Einspritzmenge: 2 stop(s)  
Kalibrationstyp: Normalization  
Probengewicht: N.A.  
ISTD-Gewicht: N.A.

Bearbeiter: Spitaler Maria  
Runtime: 30,00 min  
Injektor: HP5890 Front Injector  
Detektor: WLD  
Probentyp: Blank/Unknown  
Multiplikator: 1,000

PV03491\_BA5890\_28A\_11.08.2008 09\_19\_54\_4.DATA - HP5890 Signal 1



Index	Time [Min]	RF	Area [µV·Min]	Area % (%)	Quantity [%]	Name
24	0.69	1.000	1,7801	0,007	0,007	
1	0.75	0.646	417,4172	1,707	1,110	Ethanol
2	1.26	1.000	6,1168	0,025	0,025	
3	1.95	1.000	0,0132	0,000	0,000	
4	2.92	1.000	0,2074	0,001	0,001	
5	3.14	1.000	7,5002	0,031	0,031	
6	3.49	1.000	0,8063	0,003	0,003	Tetraethoxysilan
7	4.10	1.000	1,4979	0,006	0,006	
8	6,53	1.000	4,2330	0,017	0,017	
25	7,72	1.000	14,0234	0,057	0,058	Alkyltriethoxysilan (1)
26	7,92	1.000	2,3680	0,010	0,010	Alkyltriethoxysilan (2)
9	8,09	1.000	2,5757	0,011	0,011	Alkyltriethoxysilan (3)
10	8,18	1.000	3,3558	0,014	0,014	Alkyltriethoxysilan (4)
11	8,59	1.000	16,0715	0,066	0,066	Alkyltriethoxysilan (5)
12	8,70	1.000	1,6582	0,007	0,007	Alkyltriethoxysilan (6)
13	8,82	1.000	18,6465	0,076	0,077	Alkyltriethoxysilan (7)
14	9,34	1.000	22,3271	0,091	0,092	Alkyltriethoxysilan (9)
15	9,68	1.000	22866,1720	93,536	94,105	2,4,4-IO-Triethoxysilan
16	9,78	1.000	16,5927	0,068	0,068	Isomer Octyl-Triethoxysilan (1)
17	9,92	1.000	37,3919	0,153	0,154	Isomer Octyl-Triethoxysilan (2)
18	10,29	1.000	386,7518	1,582	1,592	Isomer Octyl-Triethoxysilan (4)



Wacker Chemie AG, WL-C-A-B  
Betriebsanalytik / Quality Control

Probenbezeichnung: 109807 - SILRES BS 1701, KH07241  
Datenfile: PV03491\_BA5890\_28A\_11.08.2008 09\_19\_54\_4  
Auftragsdaten: Auftrag Q-00050236-05AUG2008, Probe 200603, Test 552899, Prüflos 000003258399  
Analyse am: 11.08.2008 09:21:55 Bearbeiter: Spitaler Maria  
Methode: PV03491\_BA5890\_28A Runtime: 30,00 min  
Gerät: BA5890\_28 Injektor: HP5890 Front Injector  
Säulenparameter: DB-1 Nr.54, 30m, 0,53mm, 1,5µm Detektor: WLD  
Einspritzmenge: 2 stop(s) Probentyp: Blank/Unknown  
Kalibrationstyp: Normalization Multiplikator: 1,000  
Probengewicht: N.A.  
ISTD-Gewicht: N.A.

Index	Time [Min]	RF	Area [µV.Min]	Area % [%]	Quantity [%]	Name
19	10,57	1,000	584,9731	2,393	2,407	Isomer Octyl-Triethoxysilan (5)
20	15,33	1,000	4,7741	0,020	0,020	Dimer Tetraethoxysilan
21	17,28	1,000	5,2486	0,021	0,022	
22	17,39	1,000	14,6299	0,060	0,060	
23	19,20	1,000	8,0485	0,033	0,033	Dimer 2,4,4-iO-Triethoxysilan
27	19,77	1,000	1,1196	0,005	0,005	Dimer Isomer Octyl-Triethoxy(2)
Total			24446,3007	100,000	100,000	

	Name	Quantity [%]
	Alkyltriethoxysilan	0,33
	Isomer Octyl-Triethoxysilan	4,22
	Dimer Isomer Octyl-Triethoxy	0,00
	Wirkstoffgehalt	98,70
Total		

**APPENDIX IV:**  
**ANALYSIS OF DOSE FORMULATIONS**

Table 1    Detailed Results of Application Formulation Analysis  
*(Rounded results presented are based on calculations with exact data)*

Dose Group	Sample taken from/after	Date of Analysis	Nominal Concentration [mg/mL]	Actual Concentration [mg/mL]	Recovery	Mean Recovery	Maximum Variation from Mean
Date of Preparation: 20-Jan-2009							
1	vehicle	05-Feb-09	0	0.000	---	---	---
2	top	05-Feb-09	20.0	21.52	107.6%	102.8%	7.2%
	middle	05-Feb-09	20.0	19.06	95.3%		
	bottom	05-Feb-09	20.0	21.07	105.4%		
	4 hours/2-8 °C	05-Feb-09	20.0	20.96	104.8%	---	2.0%
	7 days/2-8 °C	05-Feb-09	20.0	21.40	107.0%	---	4.1%
3	top	05-Feb-09	60.0	54.47	90.8%	92.4%	3.3%
	middle	05-Feb-09	60.0	54.54	90.9%		
	bottom	05-Feb-09	60.0	57.29	95.5%		
	4 hours/2-8 °C	05-Feb-09	60.0	56.09	93.5%	---	1.2%
	7 days/2-8 °C	05-Feb-09	60.0	53.42	89.0%	---	3.6%
4	top	05-Feb-09	200.0	202.9	101.5%	103.8%	4.5%
	middle	05-Feb-09	200.0	217.0	108.5%		
	bottom	05-Feb-09	200.0	202.8	101.4%		
	4 hours/2-8 °C	05-Feb-09	200.0	201.0	100.5%	---	3.2%
	7 days/2-8 °C	05-Feb-09	200.0	203.5	101.7%	---	2.0%